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Why I Am a Pictorial Photographer

(Number Twenty-Two)

SOPHIE L. LAUFFER, F.R.P.S.

I OWE whatever right I may have to the title of Pictorial Photographer to that most humble and popular of photographic instruments—a Brownie Camera. This camera, purchased at a department store in 1913 for $2.50, was my companion on my first trip to Europe, which was in that year. Incidentally, I may add that some of the negatives made with my faithful Brownie camera have been bases of prints which have passed the scrutiny of salon-juries in the years which have elapsed since the exposures were made. Previous to my first experience in the field of photographic endeavor, I had been a student of art in its various branches, particularly sketching and painting. I had studied at universities and had been a member of sketching clubs for years. The ideas of composition and arrangement which I had imbibed, as a result of my art-studies, I found were unconsciously seeking expression in my photographic work; and I began to feel myself dissatisfied with the limitations of my instrument and to desire a more ambitious equipment.

This feeling was confirmed by a trip which I made to California, Yellowstone Park, the Yosemite Valley, and the Grand Canyon, in 1917. Although this trip was productive of negatives which have since stood me in good stead, I felt the yearning for something finer—I knew not what—in the nature of photographic equipment.

And so another couple of years drifted by. Still armed with my trusty Brownie, I was making an occasional exposure—even unconsciously, perhaps, seeking to make a picture with the limited means at my command.

But fortune was to change this aimless endeaver and to lead me definitely into the field of "pictorialism".

I read of a class in photography for beginners. This class met one evening a week. I joined the class, and after a few weeks I made up my mind to quit. The men talked so learnedly about cameras, lenses, tripods, and cost of this and that, that my mind was in a muddle and I felt that I didn't belong. I was overawed by the chemistry of the developing-process, which was explained and demonstrated so simply and clearly. One young man quite frightened me with the glibness with which he used high-sounding photographic terms, formulas, and processes, and I wondered if they would be anything but Greek to me. However, after talking the matter over at home, I decided to stick to it, go to each lesson and demonstration, and prove to those "know-it-alls" that I, a woman, could show something better than theirs at the spring Exhibition. I wasted—shall I say?—dozens of plates; but finally I obtained a few enlarged negatives from the Brownie negatives and made two very creditable gum-prints, which were hung. After that, I bought a small 3¼ x 4¼ camera and decided to spend three weeks at Canaan, Conn., under Clarence White, who I soon found inspired everyone he came in contact with. Ah, those days in Canaan—never to be forgotten! And the men one met! Edward Dickson gave, like Clarence White, his best; and there was Dwight Davis, with a kind word of encouragement for the novice. And out of that summer grew my membership in the Pictorial Photographers of America—another formation of friendships which have come to mean something.

To meet and know men like Dr. Chaffee, Dr. Ruzicka, Stephen H. Tyng, Wm. H. Zerbe,

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Oscar C. Reiter, Wm. Macnaughtan, Wm. A. Alcock, and many others was a joy and a delight, and the encouragement which they gave me had much to do with shaping my career as a pictorial photographer.

In the winter 1918–19, I turned my attention to the exhibition field. Drawing on the store of negatives I had made at Canaan, I made a couple of bromoils, and with fear and trembling I sent these two to the Pittsburgh Salon. Imagine the thrill I got in receiving from Mr. Archer a letter advising me that a print had been accepted and was being used as the only print to be reproduced in the catalog. I certainly felt that I had attained my goal, and I have never since had the feeling of satisfaction—not even when I won the $100 prize for a portrait at Seattle or when I got from London a letter advising me that I had been elected a fellow of the Royal Photographic Society of Great Britain —which I experienced from reading Mr. Archer's kind note.

And so, from this point, I could go on and trace my progress—winning medals, certificates, notices, etc.—as a pictorial photographer. Suffice it to say that the path has been a pleasant one and the friendships I have made along the way will be treasured always.

Motion-Picture Photography as Applied to Medicine

CARL D. CLARKE

Art and Photographic Department, University of Maryland

DURING the World War a department of motion-picture photography for teaching purposes was established in the Medical Museum at Washington, D.C. Reels on medical subjects predominated in their productions, and reels of war propaganda and educational subjects for soldiers were also produced. Among the staff of production was the now famous Paul Terry, the originator of "Æsop's Film Fables". At that time, Mr. Terry made animated drawings for such reels as "Anti-Vice" and "An Operation for a Femoral Hernia".

The Museum has since given up the motion-picture department; but during its existence it did a great work, producing some three hundred reels of importance. It really opened up a new field for the motion-pictures—that of medicine.

Since the organisation of that department in the Medical Museum at Washington, many institutions for teaching, especially those of medicine, have established similar departments. A few commercial firms have also produced some medical motion-pictures. The outstanding firm that is producing medical motion pictures on a commercial basis is the Eastman Kodak Company, which is working in conjunction with the College of Physicians and Surgeons.

The motion-picture film brings medical students into a closer touch with clinical material and cases, providing information concerning the outward evidences or symptoms of certain psychological disturbances, such as neuroses and epileptic seizures; for both typical and unusual cases can be preserved on the motion-picture film for study at any time. Today, many students receive their doctor's degree before they have seen certain types of important cases which were not available during their attendance at clinics. Through the motion-picture, the student could so familiarise himself with such cases that he would be able to recognise similar cases in his daily practice after he leaves medical school.

A specific example of the value of motion-pictures would be a photographic study of various numbers of gaits, such as in ataxia, propulsion, Parkinson's disease, and so on, which would undoubtedly help a young doctor to make a diagnosis. Cases are ofttimes available for observation in hospital routine instruction; but they are difficult to differentiate. The so-called close-ups shown by the "movies" will bring the student in contact with the operating table or with careful diagnosis of the patients made by skilled practitioners, the instructive captions and titles helping him to understand what it is all about. Such a view of the operation could never be obtained from the amphitheater seat.

The detail of arterial, nerve, or intestinal anastomosis, bone grafting, of the application of the mechanical principles of direction, the technique of tendon and muscle transplantation for deformities, and the application of deep sutures are brought home and fixed in the memory by the motion-picture as by no other means of instruction, save by actual experience gained while performing these operations.

The late Dr. R. Tunstall Taylor, in the *American Journal of Orthopedic Surgery*, issue of November, 1918, page 414, says that this mode

SUNSET IN THE FALL K. MATSUKI

HONORABLE MENTION—WATER-SCENES

of instruction, in conjunction with the didactic lecture, has been found to yield a higher average mark per student than any other mode of teaching.

The motion-picture film has an advantage over the lantern-slide in that the component parts of the lecture cannot be disarranged, broken, or lost. The film is lighter and more easily handled in comparison with the same number of subjects on lantern-slides. One can study the physican's or surgeon's movements with particular reference to his economy of time, which is not possible with the slide. There is an attachment for the projector that permits the film to be stopped on a single picture, thereby covering every advantage that the lantern-slide offers. And, furthermore, the projector can be stopped during the showing of a film for a lecture or short talk on each scene of the film, and individual pictures from the motion-picture negative can be enlarged for reproduction in medical journals or for use as lantern-slides.

The equipment for making motion-pictures is not expensive. A good, inexpensive camera, which carries the standard-size film (35 millimeters) and one or more incandescent lights for motion-picture production, is all the equipment necessary. After the films are made, a commercial laboratory will usually develop them better and more cheaply than the amateur could do.

It is impossible, when making a motion-picture of an operation, to use the arc lights so popular for motion-picture production, due to the open flame and the inflammability of ether, used as the anæsthetic in most cases; only incandescent bulb lights are permissible. With the use of spinal anæsthesia, which has become very popular, the light-source for motion-picture work in medicine makes little difference.

Panchromatic film for true color-value in black-and-white tones for such a subject as an operation is essential—blood photographs black on ordinary stock film—and can be used for all subjects, except for charts or animated drawings, where the greatest amount of contrast is

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desired. In these last, it has been found that exposed positive raw stock, developed in a contrasty developer, gives the most satisfactory results.

The Ciné Kodak, or any camera using sub-standard film, such as the nine- or sixteen-millimeter film which the exposed negative stock is developed and reversed into a positive, is hazardous to use in medicine. This is due to the fact that one does not have the value of the printing-process in this film. Also, the small cameras do not have the refinements that most standard cameras have. The most important of these is a device that focuses the picture on a ground glass or the film, so that the eye can tell when the lens is in perfect focus.

There has been some talk about the sixteen-millimeter film being the ideal film for teaching purposes. This would possibly hold true if all negatives were made with a standard camera using the standard thirty-five-millimeter film, and then reduced to the sixteen-millimeter film for the positive. This would be cheaper only where there are a number of positives to be made from the same negative. In fact, this is the way about all the satisfactory sixteen-millimeter film for teaching purposes is made. I do not advise using a camera that takes sub-standard film.

Now that the Vitaphone and Movietone have been invented, it is predicted that the students in the medical colleges of the future will be taught by sound motion-pictures. The sound will be in the form of a lecture accompanying the pictures. Furthermore, Admiral Bullard, the chairman of the Federal Radio Commission, has said that before ten years are up we may be able to see and hear famous operations by radio. This I doubt very much, for the reason that the public will never be educated as a whole to enjoy the sight of blood and enjoy the fact that a fellow member of the great human race is suffering before their eyes. Yet it stands to reason that the medical students of the future will have a rare advantage over the medical students of today, with regard to the effort and the energy used in learning the same number of subjects.

A Light-Proof Window

PERRY D. FRASER

MY darkroom is in a corner of the basement of my house. There are two windows, each one hinged at the top. The sashes are much larger than in the average basement; for it is more than half above ground. How to shut out the light from these windows, at will, without resorting to a slow, inconvenient method, was a problem. Of several devices tried, all were unsatisfactory and clumsy save one, and that one is so simple that it may appeal to other amateurs.

Let us assume that the sash is 30 x 36 inches. From pine, say three-quarters of an inch square, make a frame about 29 x 35 inches over all. Miter the corners. Attach this frame to inside face of sash with brads, or small nails, merely long enough to secure it against warping. In this form, the frame in no way interferes with opening or closing the window, whether the latter be hinged at top or side.

Make another frame of the same square pine stuff, miter corners, and fasten these with brads, as one would do in making a frame for a picture. See that it is just a bit smaller all round than the fixed frame on the window-sash.

From a discarded window shade—dark green preferred—cut a piece large enough to cover the removable frame, and attach with small tacks driven into outside edge of frame. Make a neat bit of fitting, so that the cloth will not sag.

Finally, add a second covering of heavy Manila paper. Fasten paper to cloth, with paste thinned sufficiently to moisten both cloth and paper, so that both, in drying, will shrink until almost as tight as a drumhead.

If one wishes to develop a few plates on a rainy Sunday, or in an evening when a thunderstorm is brewing, he merely slips a covered frame into each window and goes to work with full confidence that no stray light will leak through the windows. And when his work is finished, he pulls out the frames and stands them in a corner. No tacking, pinning, or weighting clumsy dark shades; and they stay put.

If the window-sash fits closely in its frame, no light will enter around it, as a rule; but a test should be made during a storm. Lightning will show leaks, if there are any. As an extra precaution, equip the window with a dark shade on a roller, and pull this down over the removable frame. Protected in this way, your darkroom may be made "as dark as de inside of a cow", to quote Rastus.

THE PARADE OF SNOW-MEN
H. K. SHIGETA
HONORABLE MENTION—WATER-SCENES

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FIGURE 1. CONTACT PRINT FROM NEGATIVE CLARENCE PONTING

Portraying the Rising Moon

CLARENCE PONTING

THE photography of difficult subjects has always made an appeal to me, which is why I conceived the idea of attempting the production of a picture giving the effect seen when the moon is rising over the river. Whether such a theme is possible with the present-day large-aperture lenses or not, I do not know; but those having such things might like to amuse themselves in making the attempt. There are some beautiful effects to be seen when the moon is rising behind the tree-tops; while the lightings around the cloud-forms alone, when partially obscuring the moon, would be well worth portrayal, if it were possible.

As, however, my lens only possessed an aperture of F/4.5, picturing the real moon was out of the question, and so the old dodge of obtaining moonlight-effects by photographing the sun had to be resorted to. Obtaining these effects when the sun is behind a protecting bank of clouds is quite a different matter from photographing the unobscured sun, as the worker will quickly discover when he makes the attempt. When the sun is correctly focused, the lens acts as a miniature burning glass, concentrating an intense spot of light upon the film, which it is almost beyond its power to record and which may destroy the emulsion if the rays are allowed sufficient time for action. So great is the over-exposure, in most cases, that this spot of light becomes a positive in the negative—what is known as reversal having taken place.

When the moon is depicted in paintings, it is generally represented as a fairly large disc, somewhat the size we should imagine it would be in relation to the landscape. The camera-lens, however, insists in depicting the image of the sun as a minute spot in the sky, if it is not entirely lost in halation. Given sufficient room, it might be possible to enlarge this minute image into a large enough disc to appear in correct proportion to the landscape, at the expense of definition and an enlargement of the grain of the negative.

To avoid these disadvantages, the image of the sun would have to be fairly large in the original, and this would necessitate the fitting of a long-focus lens working at a rather small aperture. Fortunately, this latter point would not much matter with the subject, as slight

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FIGURE 2. THE RISING MOON
UNTOUCHED ENLARGEMENT OF PART OF FIGURE 1
CLARENCE PONTING

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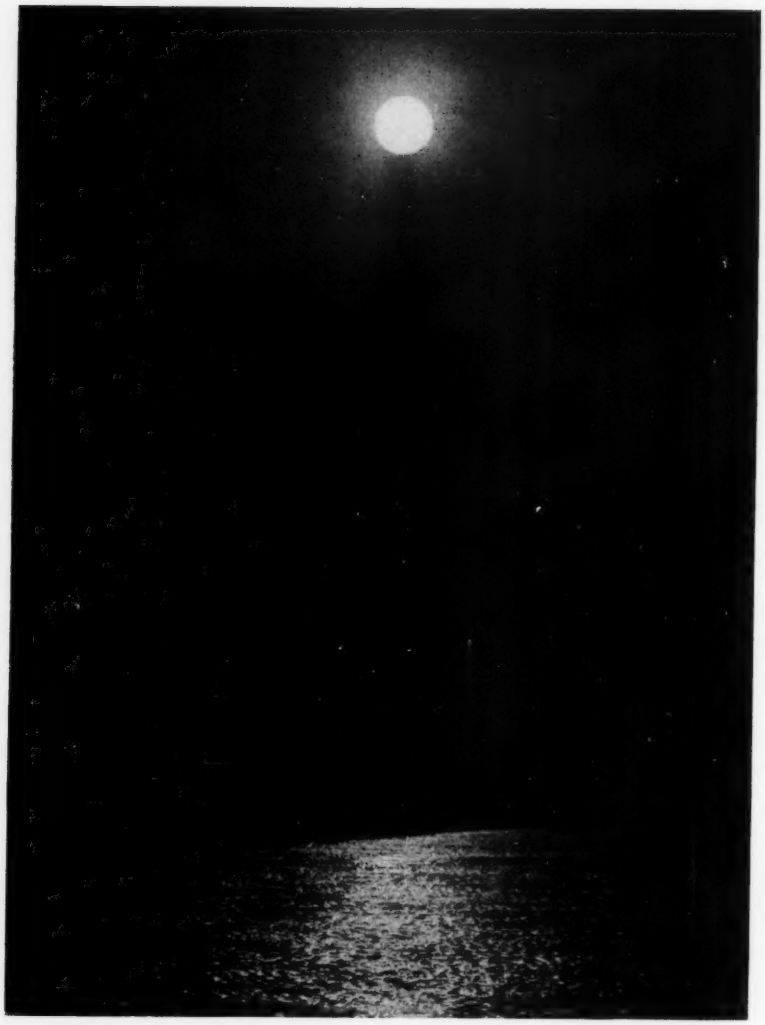

FIGURE 3. MOON PRODUCED BY MEANS OF A PAPER DISC STUCK ON NEGATIVE.
CLARENCE PONTING

underexposure might enhance the desired effect of night. To make a negative in which the "moon" would measure one-half inch in width—as it does in the original of the present illustration, "The Rising Moon"—would require a lens having a focal length of some forty inches, and, as it was impossible to do this, the original negative was made with the half-combination of a convertible anastigmat fitted to a triple-extension half-plate camera, the single combination giving a lens having a focal length of eighteen inches. A portion of the image so obtained would, by subsequent enlargement, give the realistic image I required. That this was a practical solution to the difficulty may be seen from the illustrations, which represent: *Figure 1*, A contact print from the original half-plate negative. *Figure 2*. The portion enclosed by the lines, measuring two inches by one and one-half inches, enlarged to whole-plate, which produced a very satisfying representation of the moon.

With such a subject it is absolutely essential to fit a lens-shade, and to use backed plates, which allow even the unobscured sun to be photographed toward sunset, giving a very good effect of the moon shining in an unclouded sky. At sunset the power of the sun is lessened and the risk of reversal minimised, especially if a very faint haze is present. Some very effective results can be obtained by including the setting sun as it sinks behind the tree-tops, although it should not be allowed to sink too far, or the landscape portion will become too underexposed to give a realistic result. On account of the glare and the apparent darkness of the surrounding landscape, focusing will have to be done on the sun, when, although some of the landscape may be out of focus, the part it is desired to enlarge should be sufficiently defined for the purpose. This darkness of the image, as seen on the screen, will make the worker think an instantaneous exposure to be an impossibility; but with an exposure of 1/15 on an H. & D. 250 plate, with a relative lens-aperture of F/18, a fairly well-exposed negative resulted, the time of day being just after six o'clock in the middle of April. As a rendering of a moonlit subject is being attempted, the negative must be kept on the thin side, development time being somewhere about that required when making cloud-negatives, or half that given to a normal subject. The object should be to retain that "moon" at all costs. Develop too far, and it will be lost in the density of the sky and the clouds which surround it. Remember also that, although the resultant print may only be whole-plate in size, in order to get the "moon" large enough the enlargement of the whole negative will be considerable and will require a very thin negative if printing is done with a condenser enlarger.

Some control in printing will have to be exercised, as the sky portion containing the "moon" will require to be more deeply printed to get the effect of night, while the "moon" itself, which is slightly veiled in the unavoidable halation around the sun, will need still more exposure. A large hole cut in a piece of opaque paper will serve to protect the landscape portion while this additional exposure is being given.

As the setting sun rapidly changes its position and the arranging of the composition on the focusing screen of a field outfit is a slow matter, it is advisable to determine the position of the camera a short time before the sun reaches the correct position for exposure. Suitable subjects for pictures of this character may be selected by the light of the real moon, as it is extremely difficult to gauge the effect which will be produced in the finished print when the scene is bathed in the light of the setting sun. Having selected the subject at night, a visit in the evening will be necessary to obtain the negative.

So far, I have written on my method of obtaining an image of the sun which will serve for the moon in landscape. A somewhat simpler method of attaining the same end may be obtained by the cowardly means of sticking a disc of opaque paper on the glass side of the negative, over the small speck which represents the image of the sun. This produces a very good effect in a clear sky, as the halation round the real sun gives a kind of glow which appears to emanate from the large white disc given by the opaque paper. The method is not suitable where clouds are present, and subsequent enlargement betrays the fraud; for no matter how cleanly the disc of paper was cut, or punched, when magnified its edges will appear ragged, whereas the real image of the sun will always be clear-cut. For contact printing, the disc of paper method is quite effective, and may be used where such a subject is required for almanach or Christmas-card use. The effect produced will be seen in *Figure 3*.

Black-and-white prints are quite suitable for such subjects; but the blue-black tone which is obtained by a very slight toning with a solution used to give bromide prints an abominable blue, when carried to maturity suits such subjects admirably. The tone seems to come in the washing water, and the print should be removed from the toning-solution the moment the merest change in color is apparent, otherwise it will become too decided in color when put in the washing water. The green toner is equally effective for the purpose, if the merest suggestion of the tone is introduced.

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Possibly these hints may be of service to some jaded worker who is in search of a fresh subject, for it has not been overdone. At certain times of the year—particularly in winter, when the leaves are off the trees, and the sun is not so actinic in its rays—some very good exhibition-pictures may be made by this means. The present illustration was hung at one of the Northern Exhibitions and obtained a plaque in the *Amateur Photographer* Lantern-Slide Competition, both prints being from untouched negatives; in fact, the lantern-slide was a quarter-plate contact on a 250 H. & D. plate, and not a lantern-slide at all. I had used the transparency for the purpose of making an enlarged negative, and afterwards cut it down to lantern size.

Up in British Columbia With a Camera

Part II

SAMUEL F. RACINE, C.P.A.

WE found a delightful camp all prepared for us at the end of the day's journey. Two tents, one a bunk house and the other a cook house, were built near the trail and not far from the river. Rome had nothing on us for an aqueduct for a water-supply. A small rivulet ran right through the camp and brought us ice-cold water which served all of our purposes, even to that of refrigeration.

One of the most interesting things I found at the camp was the tricky trap that had been made by the cook. Mice are very bothersome, and, in order to exterminate them, a trap was made by the aid of a "coal-oil" can—perhaps I should say kerosene can—but it is always "coal-oil" in the West—a milk can and a piece of wire. The milk can is punctured at each end and the wire is inserted. This proves again that bale wire is the most useful thing in the world. Care must be taken that the milk can will be perfectly balanced and that it will turn over readily. The wire is then run through perforations placed about an inch below the top of the coal-oil can. The outer surface of the milk can is covered with cheese, bacon grease, or anything else that will attract the mice, and the coal-oil can is partially filled with water. It is placed at any convenient point where the mice can reach it. They see the bait on the milk can and jump over onto it; however, it turns over and they slide into the water. Over thirty mice were caught during a three-day period.

In the evening we went fishing. The pole and line were not much for looks; they were reminiscent of boyhood days and did not match up at all with the hundred-dollar outfit I had left at home; but they certainly did the trick. It took us but a few moments to get enough seven- or eight-inch trout for a meal. Next to mosquitoes they were the most voracious things I ever saw. It seemed as if I had to turn them nearly inside out to get my hook out; and in order to avoid hurting them any more than necessary, I inquired of one of my friends how to kill them without this torture, and was shown how to break a trout's back quickly by placing the thumb on the upper side of its mouth and the finger just back of its head. In this way the head can be bent back very quickly without submitting the trout to all the tortures that it must endure while the hook is being drawn.

The trail up to the mine is nearly horizontal for a mile, then it starts straight up—3,500 feet increase in altitude in less than two miles. Having ridden up to the lower camp the previous day, I concluded one day on horseback was plenty and "I chose to walk", although a horse was available for me had I desired to use it. I have often wondered why someone didn't invent a saddle that would be comfortable. I never found it necessary to use one for a period at a stretch so long that it represented anything to me but an instrument of the Inquisition.

It wasn't long before the "old haymaker" got a good slant at us. It wasn't so hot in the timber; but after we reached the rare air above the timber-line, it seemed as though we were picked out as special subjects for torture. We all started together; but it wasn't long until we had each estimated our strength and endurance, and were spread out all along the trail. Our steps soon began to get shorter and our rests longer; at least, we showed a decided disposition, as we neared the top, to sit on the rocks and admire the scenery. The glaciers at the head of Chimdemash Creek were very attractive and interesting, and the inverted V of the distant peak superimposed on the V formed by the sides of the valley offered sufficient composition-value to warrant a picture. I was unable to find a

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level spot big enough to hold a tripod; so I had to make a snapshot at 1/50 of a second with the stop set at F/4.5. While I was making the picture, the snow on the glacier slipped to a noticeable extent, but the cracks made are not discernible in the picture.

The horses were abandoned at the upper camp, which is about one thousand feet below the prospect. The prospect is right on the top of the mountain; in fact, we could see the other

blister and peel. The handkerchiefs at least convert the blistering rays into something harmless. I did not daub up with grease paint, neither did I lose any skin through blisters, although the tip of my nose showed that I had exposed it a little bit—at least it was red for a couple of days.

I am showing a picture of the O. K. Mountains made from the mine-location. I set the stop at F/32, the speed at one second, and attached

O. K. MOUNTAINS SKEENA RIVER FERRY CHIMDEMASH CREEK

GROUP I SAMUEL F. RACINE

side of the mountain before we reached the prospect.

Although it was July, the prospect was found to be nearly covered with snow, particularly where the vein had been uncovered, on the protected side of the hill where the sun could not reach it. However, we were able to get down to it and make a study of it and also make quite a number of pictures. The one that interests us most is a picture of our party just before we started down the hill. This was the first opportunity that I had to use my Autoknips shutter-release, so that I could get into the picture myself. I did not get properly posed in the first picture, with the result that my friends said I looked as if I had been chased up the hill and was suffering from fatigue. The second picture was better, and I have enlarged it for a permanent reminder of the trip.

Profiting by my study of photography, I protected myself from the sun's rays on the mountain with a couple of bandanna handkerchiefs. These I wore to kill the violet-rays, or whatever kind of ray it is that causes a face to

both the Protar lens and the three-times filter. This was the first time that I had found it necessary to use my Protar lens. The hills across the valley were so close and the elevation so great that I was unable to include the entire mountain without the aid of the Protar lens. Owing to my position, I found it necessary to lower the camera as much as possible in order to include the entire mountain; but you will notice that the Protar lens is not susceptible for use where the lens is lowered or raised. In this particular picture you will notice the black corners, which indicate that that portion of the negative was unexposed.

The little river that you will see near the bottom of this picture is four thousand feet from where I was standing. If you will compare the perspective of the picture of the O. K. Mountains with the perspective of Kitsalas Peak, you will notice that the O. K. Mountains appear very precipitous but Kitsalas appears to have but a gradual slope. It is true that Kitsalas is possible of ascent and that the O. K. Mountains are not; but the fact that I was below Kitsalas and

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above the O. K. Mountains accentuated the angles and made Kitsalas appear less steep than it really is and the O. K. Mountains more so.

On our return from the trip to the mine, I reached the camp ahead of the rest of them and made myself some cheese-sandwiches. When the cook arrived, I found that I was in disrepute and had disgraced myself forever, as I had eaten all the mouse-bait.

After we had proved to our satisfaction that although any one of us, if given time enough, could figure out how to throw a diamond hitch and that the three of us collectively could never do it, we tied our dunnage on the horses as best we could and started for town. The only pictures worth while made on the return from the prospect were of the Chimdemash Creek and the ferry across the Skeena River. I tried to get a picture of a pet squirrel that the ferryman had adopted. This squirrel seemed to enjoy riding across the river on the ferry-boat. He was supposed to be a philanderer, and they said that they had authentic evidence that he had a family on each side of the river and that he felt perfectly safe, because neither of his wives nor any of the other squirrel-tribe dared venture across the river on the ferry-boat.

In view of the movement of the water, I had to speed up the shutter and increase the size of the aperture. I used stop F/4.5 at 1/50 of a second for the white water of the Chimdemash Creek and F/5.6 at 1/25 for the slower water of the Skeena. The smaller aperture was used for the Skeena River picture, as there was more water and hence more light reflected, and there was less timber on the Skeena than around the Chimdemash.

Leaving Usk, I took the train again, for Jasper, as I believed it well worth while to take in Jasper National Park as long as I was so close to it. The most interesting feature of the trip was the natural dam, Buckley Gate, in Buckley Canyon. This is a wall of rock, eight feet thick and one hundred and fifty feet high, which originally damned the Buckley River. Evidently Nature's dam didn't hold, as all that now remains is the two sides thereof, one of which can be readily seen from the railroad-track. The transportation company makes quite a feature of the interesting things along the route and stops the train for five or ten minutes to permit the passengers to inspect them. The picture of Buckley Gate was made about eight o'clock in the evening, at the customary one-second exposure, with the stop at F/11. Notwithstanding the long exposure, I got considerable detail in the white water. This is possible in rapids where the same influences agitate the water all the time and keep it white in the same places, and where sufficient distance renders details unimportant. We were nearing the land of the midnight sun, which accounts for the amount of light available so late in the evening. I was even able to make a close-up at 9.30 P.M., at one second, with the stops set at F/4.5.

At Kitwanga the train stopped again, to give us an opportunity to visit the Indian village. There were a number of totem poles and a few other things of interest. I drifted away from the crowd and found a little museum operated by Chief Lakintz. He had a totem pole and a lot of other interesting objects inside. He volunteered to permit me to make a picture; but, not being accustomed to indoor exposures under those conditions, I was deceived by the amount of light and did not get as desirable a picture as I hoped. It also seemed that the chief is quite frequently snapped—at least he showed quite a tendency to move as soon as he heard the camera click. He could not understand that I was trying to make a time-exposure and that the camera had to click twice. I gave the picture about four seconds, where I probably should have given it ten seconds.

In all of the Indian houses along the coast that I ever entered, I have found a large space in the center of the room where there is no floor—this space being used for a fire. Poles are stuck in the ground and a low roof is put over this space, forming a sort of wikiup. I have never been able to find out just why they should build a wikiup of this sort inside their houses, but the odor which I encountered and which seemed to be traceable to strips of meat that were hanging up under this low roof indicated that it is a sort of smoke-house. I did not have an opportunity to inquire of Chief Lakintz as to its purpose.

He was one of the few Indians I have found who was willing to submit to a photograph. I discovered one of the Indian women sitting on the church-steps and asked her if I might make her picture. She was quite emphatic in her refusal. She was a nice-looking, motherly sort of Queen Victoria type of individual, and one would not care to infringe upon her rights by making a picture of her without her consent. In trying to explain to her my desires, I pointed the camera her way, and with a swish of skirts she immediately disappeared around the side of the church. Indian women nearly everywhere object to having their pictures made. I have been informed that they have the idea that the photographer can see them upside down—and what woman wants any man to make her picture when she is standing on her head?

The next stop made by the train was at the

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landing arranged for viewing Mt. Robson. However, Mt. Robson, as is usual with tall peaks, had covered itself with a mass of fog, so that it was impossible to see anything more than the foot-hills. Large mountains are covered with snow and ice most of the time and, just like great big ice-boxes, they attract the moisture and can be seen only on the clearest of days or very early in the morning, when the air and the snow are more nearly of the same temperature.

Jasper Park was reached late in the evening. To me it was quite a disappointment, possibly because the hotel is so far away from the points of interest, or perhaps because I did not have my own car. It is situated on a rather pretty little lake. Quite a lot of money has been spent in making it attractive to tourists. The principal attraction, however, is golf—and what amateur photographer can see anything in golf? I did not see anyone fishing, except for golf-balls. They had long poles about twenty feet long, with nets on the ends. These were used to fish golf-balls out of the water.

One thing I noticed particularly at the hotel was the lack of appreciation of the view and the surroundings on the part of the employees. Even the architects, in designing the building, had failed to give consideration to the opportunity for emphasising the wonderful views. Of course, there is a possibility that the lodge is intended just for temporary use; but considering the way it is constructed, I concluded that they intended it for permanent use. Certainly, they did not make the best of the view, neither by having large plate-glass windows or by having the lodge placed in the best possible location.

There was such a noticeable contrast to the attitude of the employees of Yosemite Park, which I had visited recently, that it could not escape my attention. At Yosemite everyone is imbued and enthused with the view. When the maid comes into the room in the morning, she remarks about the sunrise or the wonderful view out of the window, or makes some other statement which will cause you to sit up and take notice. When you enter the dining-room, a keen, wide-awake little lady will escort you to the table and, although she may not speak a word, you will feel by the way she places you before the big plate-glass window that you simply must admire the view. She will make it a point to remember you when you enter the dining-room again, and will endeavor to arrange the same table for you and place the same waitress at your disposal. At Jasper, throughout your stay the *maître d'hôtel*—as sober-looking as a convict ready for hanging—will lead you out into the middle of the main dining-room and hold a chair for you. Although you express admiration for the view of the lake, you will still receive no smile nor word of encouragement; then, if you ask if you may be permitted to sit by the window, you will get the idea, particularly if you are sensitive to the actions and thoughts of others, that he thinks such plebeians are a distressing nuisance but must be tolerated. At least, that was the impression I received. It has no doubt all been changed by this time; and perhaps I had been on vacation long enough to become my old self again—difficult to get

BUCKLEY GATE

LAC BEAUVERT AND MOUNT EDITH CAVELL

TOTEM POLE AT JASPER

GROUP II

SAMUEL F. RACINE

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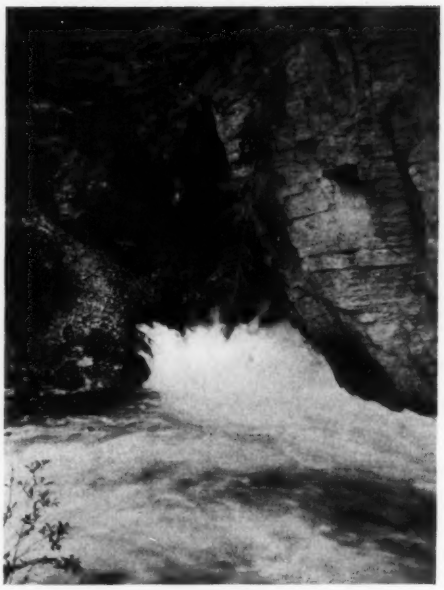
along with and hard to satisfy. The waitresses were of the school-girl variety, but they made up in earnestness whatever they may have lacked in experience, and the season was just starting when I visited Jasper.

I arose early in the morning, as I had learned from experience that frequently a good view of the mountains can be obtained then, even though the mountains will become obscured shortly after the sun hits them and the temperature of the air is changed. I made quite a few pictures of Lac Beauvert, and Mt. Edith Cavell about twenty or thirty miles away, setting the stop at F/22. The cloud-formations and their color were such that I did not feel the need of a filter. As I expected, the mountain was obscured all the rest of the day, so I did not take the sight-seeing trip to it. The only scenic trip that appealed to me was up the Maligne Canyon, about six miles from the hotel. I had the auto all to myself and succeeded in getting the driver to wait for me while I went down the canyon about a half a mile to a point where a large spring joins the river. It seems that about two-thirds of the river is lost eight or nine miles above this point and that the water travels underground this distance, returning to the river in several different places, one of which I photographed. The most interesting feature in connection with this picture is the extent to which I was deceived regarding the distance across the river. I set my distance at twenty-five feet, and then, when I looked into the groundglass, I found that it was entirely out of focus. It photographed perfectly at infinity, which on my camera begins at about fifty feet. The water was quite swift and the light was bad; so that in order to get the rifles of the water, I tried my Protar lens again, cutting down the exposure to 1/50 of a second and using the Agfa filmpack. It did not improve the picture in any way, and 1/25 of a second with the faster Imperial Eclipse Ortho plate without the Protar seemed to be ample to record the rifles. Certainly the plate produced the most attractive picture for me.

The hotel itself is a large log-cabin affair, consisting of a lobby, a dining-room, and a few other rooms. The guests are housed in little cabins, each of which has four, eight, or twelve rooms and a small lobby—a not entirely satisfactory arrangement unless you are traveling in a sufficiently large party to take over an entire cabin. The guests were noticeably different from those ordinarily found around parks available to automobile tourists. There were a larger proportion of the idle rich—the fat and fussy type—than are usually encountered. A great many of them had made the trip covered by the stampeders during the days of the Klondike rush, but they now traveled over the White Pass and Yukon Railroad and down the Yukon to Dawson on the big passenger boats. They saw, indeed, a picture entirely different from the actual occurrences of the days of '97 and '98. They had all been "loaded" with high-flowered stories of "Soapy Smith", "Swiftwater Bill", "Little Egypt", "Dirty Molly", and other wild types of individuals, and of the dangers and hardships encountered by the stampeders. None of them seemed to know whether they had gone through the White Horse Rapids or the Five Fingers. They did not know whether Altin was a side trip or whether it was on the regular route—they only saw the various things that had been doctored up for their benefit, and they had seen so much that their minds had become confused and they could not tell what it was all about.



MALIGNE CANYON SPRING

SAMUEL F. RACINE

They all agreed on one thing, which was that the mosquitoes were the largest, most energetic, and voracious of any that they had ever seen. I imagine they suffered quite a bit, because mosquitoes—"Yukon humming-birds"—the "sour-doughs" call them, surely like an ample supply of nice tender *cheechahcos*. They were bad enough when there were thousands of *cheechahcos*

on the trail during the Klondike rush. Now, when the "sour-doughs" are so tough, and they have only a few tourists to pick on, the "humming-birds" must be terrible.

None of the tourists had a proper picture of the Klondike rush at all. They did not "get" any of the stories of the wonderfully fine men and women who had undertaken the hardships of the trail, without a murmur, for the benefit of their loved ones at home. They did not hear the stories of how pokes had been made up to help poor fellows who had become ill or hurt, in order that they might get outside. They did not hear the story of how a man sacrificed his arm by throwing it into a winch in an endeavor to stop a falling bucket that would have killed his pal at the bottom of the shaft; neither did they get the picture of the trail forty miles long, so filled with people that when "Soapy" Smith was killed the word of his death passed by word of mouth from one person to another with such rapidity that it reached Bennett, forty miles away, in the almost incredibly short time of only a few hours. I have heard the time given as two hours, but I believe four or five would be more nearly correct. These tourists never heard the story of the woman who took her freight over with a team of goats. When she started out, she had seven or eight, but all died from one cause or another until there were but two or three goats left by the time she succeeded in getting her goods cached at the summit. The stampeders always tried to avoid getting behind her because the goats were continually stuck or entangled some way. Of course the drivers behind her, from chivalry, or perhaps from necessity, as they couldn't pass her, had to straighten out her goats or extricate the load whenever it became stuck.

"Cussing" became quite a habit—in fact most of the boys prided themselves on their ability to start out in the morning and "cuss" all day without saying the same thing twice. There were a couple of preachers on the trail, and the boys always tried to get behind them, so that new "cuss"-words could be learned. It was a hard grind, and a little diversion of that sort served to make it bearable; and while it is true that there was all kinds of "cussing", it was also true that real, downright oaths were seldom heard. The fact of the matter was that conditions were so trying that the weak-hearted ones turned back, the weak-bodied died on the trail, and those who succeeded in getting through simply had to have that philosophical turn of mind which could take a little hardship, like a horse breaking its leg or rolling a thousand feet down the mountains, as a diversion; or accept as a matter of course, or perhaps as just an incident in the day's work, an unfortunate circumstance like being compelled to strip and put on dry clothing after jumping into a river during freezing weather to hold up a horse's head so that it would not drown, while someone else untied the pack.

The most interesting thing at the town of Jasper is the totem pole. Evidently it was placed there by the railroad company for the particular benefit of tourists. It is well illustrative of the art of totem-pole making, even though it was probably made for commercial purposes and not for the purpose of recording some Indian's family tree. However, it serves the purpose and creates a great deal of interest on the part of tourists.

I had quite a little difficulty getting a picture that appealed to me. People were moving around all the time; and I don't like people in my pictures unless they accomplish something, such as serving to convey a proper idea of the size or height of the principal object, or, by the aid of contrast, serving to draw the eyes over to the principal object in the picture. I also wanted the most of the vacant space to be in front of the totem, so that it wouldn't look as if it were going to walk right out of the picture.

After reaching home, I developed my pictures, and I was particularly pleased to find that none of them could be classified as bad. I had at least one good picture of every important place. Two of my pictures were underexposed. Both had been made without consulting my exposure-meter. The exposure-meter takes so long to register in twilight or in a dark room that I did not care to use it, with the result that I overestimated the light-value. With contrasty paper, however, I was able to get fairly satisfactory prints.

My preference is plates; but I have always had so much difficulty when using them on trips that I had about given them up and decided to use filmpacks instead. As a last effort, I covered all of the cracks in my plateholders with commercial adhesive tape, such as I found was being used by painters of automobiles. They use it to attach paper strips to the car to protect it from the paint while it is being sprayed. This commercial tape is very much like the adhesive tape that can be purchased at the drug stores, but is much cheaper, as it is not medicated. I was agreeably surprised to find that I had practically solved the problem, and that over half of my exposed plates showed no dust spots whatever and that even the others could be used for contact prints without difficulty. This was a distinct gain.

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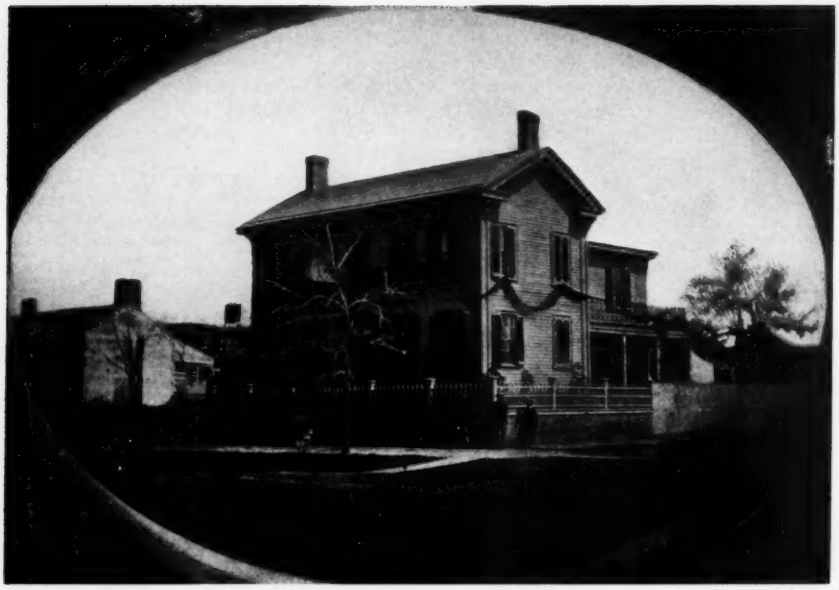

HOME OF ABRAHAM LINCOLN, SPRINGFIELD, ILL., APRIL, 1865 ANONYMOUS

A Sixty-Four Year Old Photograph of Lincoln's Home

C. J. GREENLEAF

THE picture of this homelike old house as it stood on the corner of the street in Springfield, Ill., in April, 1865, will have a double interest to your readers, I feel certain. The first and strongest one will be the fact that it was the home of the Lincoln family for many years, and the one they left when they went to Washington, where Mr. Lincoln assumed the great duties that ended only with his untimely death. The other is the fact that the photograph from which the accompanying illustration was halftoned, was made in April, 1865, and while the body of the Great Martyr, Abraham Lincoln, was on its way to its last resting place, near the old home. The picture is almost as bright today as it was when I received it, while still a Union soldier.

It may be of interest to give you a brief description as to the way it came into my possession. If the old recruiting Sergeant had said to me when I sidled into his presence, a green farmer's boy not quite sixteen years of age: "If you enlist today, you will become a member of the 24th Michigan Regiment. That regiment will be one of the five comprising the Iron Brigade. You will see some terrible service. Your regiment will lose more men in the battle of Gettysburg than any other Union regiment. Every man will be either killed or wounded. The dead will be eighty per cent. of the entire regiment"—I might not have enlisted so eagerly.

"How old are you?" he asked.

"Eighteen years old", I replied.

He knew I lied. I knew that he knew that I lied. He knew that I knew that he knew that I was lying.

"You will have to enlist as a musician", he said.

"I cannot", I cried. "I do not know one note from another."

"That makes no difference", he said. "I have told you what is in store for you if you sign today. What about it?"

Well, by the spring of '65 the old regiment

had been recruited to full strength; but it was never the old regiment again. Perhaps someone higher up thought we had done enough hard work. At least, early in the spring of '65 we were ordered to Camp Butler, six miles from Springfield, Ill. Our duty was to guard Confederate prisoners, bounty jumpers, deserters, and all the tough cases from both Armies, and they were a hard lot. It took a close chain-guard to hold them in check. It was here that we heard of the murder of President Lincoln. It was the wildest, saddest, the most terrible day that I ever saw while in the Union Army.

One morning the Sergeant came in and called two names, mine and another soldier's. Of course, we came to attention and saluted.

"You two men are to go into the city and report. Here are passes and directions."

"Take our guns?" I asked.

"No. Brush up the old uniforms. They will do."

At the office in the city we were informed that we were to stand guard at Mr. Lincoln's house until relieved.

"You will have but little to do", the officer told us. "Do not let people into the house. Answer all civil questions. Tell them the body of Mr. Lincoln is on its way to his old home."

Many persons came to look at the house. I saw many of them shed tears. Bitter indignation was expressed toward his murderer. A photographer came along and asked if he could make a picture of the house. I told him that I had no orders concerning it.

"Then I go ahead?" he said, and he did.

I gave him a dollar and asked him to send me a print to my Army address. He did. That was sixty-four years ago last April. The picture published herewith has been copied from this original. It is still sharp and bright, as this illustration will prove.

If I were wise, I should stop right here. But I am not wise. I left my comrade in charge and went to the door in the "L" or rear of the house and tried the latch. It yielded, and I stepped in. It was the kitchen and it looked very neat and clean. I went on and into the front of the house and entered what I believed to be Mr. Lincoln's library. On three sides of the room were books, many of them well worn. There was a worn desk—open, with pens and pencils. I think there was a quill pen, and there were other small articles. I was no saint at that date, and have gained nothing in that direction in all the years. Property belonging to other people does not attract me, as a rule. But, really, I had to fight the Devil and all his hosts, for they were there, urging me to help myself. *But—I didn't do it.* Believe it or not!

I had believed at that time, with many others, I doubt not, that Mr. Lincoln intended to come back to the old home for a rest, as soon as he could leave Washington and feel free from the terrible cares that had oppressed him during all the years of the Civil War. And I believe that some one had put the house in order for that homecoming and had been keeping it so.

Ah, me! It was a long time ago, and nearly all of his soldiers have followed their loved Commander to their eternal rest, and the last ones will soon follow. And there I was, a tough little soldier, with the great Civil War only a memory and history, guarding the home of our Great Commander who would never again need an earthly habitation—all this, and I not as yet nineteen years of age!

Pardon all of this, Mr. Editor. What I started to write you about was the keeping quality of the picture in question. The photographer was only a common sort of man, trying to make a little money by photographing the home of the dead President while it was draped in mourning for his untimely death.

The art was in a crude state at that time. It was the wet process, of course. He probably took no great pains with his prints. I think he used a portrait lens. And, yet, here it is! The man on the left, with arm extended, is I. The third figure was a boy who rushed up just in time to get into the view.

Let us all try and make our work as lasting as the soldiers of the Union made theirs, and as the street-photographer made his picture of the home of the Great Martyr, Abraham Lincoln.

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The Photographic Adventures of Bert and Ray

VIII—A First Lesson in Tinting

NEIL WAYNE NORTHEY

THE regular monthly "camera-day"—the first Sunday in each month—which was observed by Bert and Ray, fell on the second of February. The boys had planned a trip afield—an excursion after winter-pictures—for that day, but when Bert arrived at Ray's home, the sky was overcast with gray clouds, which transformed the landscape into a dull monotone.

"Ground-hog day", said Bert, as he gazed hopefully at the sky in search of a spot that might suggest a brightening later. "Guess Johnny Chuck will not see his shadow today."

Ray buttoned his wind-breaker a couple of buttons at the bottom to prevent its flapping around in the breeze, and looked down the street at the snow-covered ground and leafless trees that appeared almost black in contrast. "It's certainly no day for picture-making," he observed. "Not a shadow to break the monotony. If we gave enough time for full exposure in the tree-trunks and other dark objects, the snow-covered ground would be a blank white with no shadows to break it up. And if we reduced the exposure, we would get a nice lot of silhouettes."

"You're as correct as an adding machine", agreed Bert. "But what's to be done to improve matters?"

"What do you say if we give up picture-making and try our hand at tinting some of those enlargements we made? We need daylight for tinting, anyway, so that we can see the color-values."

"Might as well, I guess, from the looks of things", said Bert. And so the two camera enthusiasts, not to be outdone by the weather, started for the workroom in the basement of the Wentworth home.

Some time before, the boys had gone fifty-fifty on a No. 1 Set of Marshall's Photo-Colors, and they had spent an evening making some enlargements that were to be used for the purpose of practice tinting. Now, the very day seemed to have been made especially for the work.

"Let's see what we have", said Ray, as he opened the box of oil colors. "Fifteen tubes of assorted colors, a bottle of turpentine, one of varnish, a roll of cotton, some pointed sticks, and here's a large tube of something labeled 'Medium'. I wonder what it is."

Bert glanced through the leaflet of instructions that came in the box. "Here you are", he said. "It says to make a medium solution by placing about a quarter of the tube in two ounces of turpentine and shaking it in a four-ounce bottle. Then, before starting to tint a picture, you pour a little of the solution on the face of the print, spread it with a ball of cotton, and wipe it dry with a clean cloth. I'll tell you what—while you are finding a couple of boards and some thumbtacks to hold the pictures while we work on them, I'll make up the solution."

Five minutes later the boys were sitting at a table near a window, each with an enlargement tacked to a board before him, and with the box of colors between. The boards had been propped up somewhat on the far side, so that the amateur colorists would not have to lean over so far while at work. On the table between them was also the roll of absorbent cotton and an old piece of glass on which to squeeze a small quantity of the colors that were to be used. On the glass was a square of cotton on which a quantity of the medium solution had been poured, and this was to be used for the purpose of reducing the strength of the colors when this was wanted, and also for removing excess color.

"Well, let's see", said Ray, after the pictures had been sized with the medium solution. "What colors are we going to need for these views? We shall want some blue for the sky, and some red and yellow and brown for the autumn leaves, and I suppose a shade of green for the water in the lake."

Again Bert consulted the directions for suggestions. "This says Chinese Blue for blue skies, Payne's Gray or a mixture of Ultra-Blue and Neutral Tint for gray rocks, Viridian for water, Sepia for tree-trunks, Oxide Green for grass in the sun, Tree Green for grass in the shade, Flesh or Burnt Sienna for brick, Carmine for pink, Raw Sienna for roads, and Raw Sienna or Sepia for old wood. Suppose, as I read them off, you put a dab on the glass in about the same place that it is to be used in the picture, such as Chinese Blue at the top for the sky and so on, and then we shall not forget which is which or have to spend time looking for the color we want. If we are coloring the top or middle or bottom of the picture, we can look at the top, middle, or bottom of the glass for the color we want."

When the colors were in place, Ray tore off a small piece of cotton, twisted one end one way and the other in the opposite direction, then

folded the ends together and held them, as suggested in the instructions.

"It seems strange that no brushes are needed for applying the colors", he said. "I'll try a dab of blue on the sky and see how it goes."

He touched the little piece of twisted cotton to the color and applied it to the sky. The result was a series of streaks and blotches that were many times too deep a blue for any sky.

"Oh, boy!" exclaimed Ray. "That picture is spoiled."

"The instructions say to blend the color by rubbing in a circular motion with a wad of cotton or a piece of cloth stretched over a finger. If the color is too deep, touch the cotton to the piece that is saturated with medium solution, and remove some."

Ray worked industriously for a few minutes, moistening the color on the picture with medium solution where it was too dense, rubbing around and around, applying a little here and a little there, until he sort of "got the hang of it", as he said.

"Don't be so particular", said Bert. "Let it run over onto the trees if it wants to. You can take off what you don't want after the sky is finished by using a piece of clean cotton moistened with the medium solution. Then, when the color is applied to the trees, it will blend with the sky and never show."

Soon he was busily engaged with his own view, and there was silence for some time. Finally, Ray stepped back to survey his work. He smiled enthusiastically.

"I never would have believed that it was possible to do such a smooth job of blending without a brush, if I had not seen it", he said. "I think that picture looks quite professional."

"Yeh, I'm pretty much surprised at myself. Didn't suppose it was in me. With a little experimenting and practice in the choice of colors for different things, we'll be able to tint some pictures and leave them with Mr. Harley to sell, or tint views for other people. I always thought the work almost required a course in art. Of course, as I said, we need to do some reading on colors and such things; but so far as the work of applying the tints goes, I'm really surprised at the simplicity."

"I wonder how it compares with water colors", said Ray.

"The only way I know to find out is to try it", said Bert. "But I believe I'll stick to the oil method until I am familiar with it. It might be dangerous to my *technique* to change right now."

"It *would* be a shame to spoil it", laughed Ray. "Let's see if it's better on the next one."

Soon the boys had new enlargements fastened to their boards and were busy applying the medium solution.

"You know", said Bert, "we can tint pictures clipped from magazines, and other black-and-white printed pictures; but then we have to size them with what the instructions call 'Porosin' and apply the medium solution after the Porosin is dry."

"How about tinting glossy prints?" asked Ray.

"Not so good", replied Bert. "Leave off the medium solution if you ever try one on glossy. But glossy isn't necessary; because after these have dried two or three days, we can varnish them by pouring a little in the middle of the print and then spreading it with a wad of cotton, rubbing off the excess with a piece of cloth. That brightens the colors and adds contrast to the entire print, and also produces a slight sheen."

Thus the boys spent a pleasant forenoon when otherwise their picture-making day, so far as the actual making of pictures was concerned, would have been a failure. Of course, there are certain kinds of pictures, like outdoor portraits, which are especially pleasing when made on gray days, for the soft light eliminates the extreme contrast that is so objectionable; but generally speaking, a cloudy day is never a satisfactory time for outdoor work with the camera.

"What shall we do on our next camera day?" asked Ray, as they put away their materials and set the colored pictures up to dry.

"Let's plan on taking a hike", suggested Bert. "To-day's hike fell through, and I feel as though I would like to get out at least one day this winter. If there is snow on the ground, we will make some snow-pictures with shadows—that is, if the sun is shining. Otherwise we'll take what the day offers."

"That suits me", agreed Ray. "Let's start early, take a lunch, and return late. Morning and evening are the times when the shadows are best. We can build a camp-fire at noon, if it is cold, and take a rest while we toast our sandwiches."

"That will be March second," said Bert, after consulting the calendar in his Wellcome Exposure Calculator. "The first Sunday in March falls on the same date as in February, on account of February having but twenty-eight days. That will be just about the time that the March lion is stalking through the land, or the lamb, whichever it happens to be. We'll get a picture of one or the other."

"Yeh, I suppose it will be either a blizzard or balmy weather", said Ray. "That's usually the way it is around the first of March."

(To be continued)

XUM

Determination of Permissible Lens-Shift

EDWARD C. JONES

IN considering the purchase of a lens for a given camera which is provided with a rising-and-falling front, it is often desirable, particularly where architectural subjects are concerned, to be able to determine how much lens-shift will be permissible.

This may be accomplished either graphically or analytically. Where facilities are at hand for making a fairly accurate scale drawing, the former method, which involves at most only one simple calculation, is probably the easiest way of solving the problem and will, therefore, be the first method described.

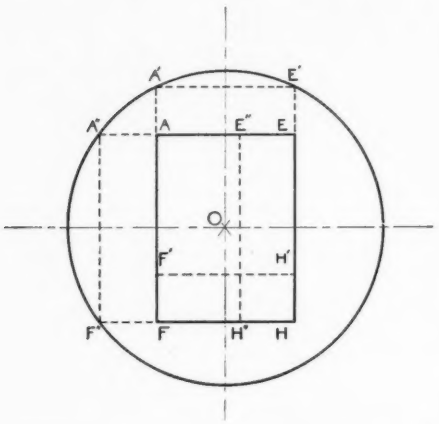


FIGURE 1 EDWARD C. JONES

Lens-catalogs generally give the covering-power of the lens in question, either in terms of the largest plate covered at small stops or by stating the diameter of the image-circle in inches or centimeters.

In order to draw the diagram shown in Figure 1, it is necessary to know the diameter of the image-circle. This may be determined from the size of plate covered at small stops, since the image-circle is the circle which can be circumscribed about the rectangle representing the plate-size in question. The diagonal of the plate represents the diameter of the image-circle.

The diagonal of a plate is equal to the square root of the sum of the squares of the two sides. Considering a 5 x 7 inch plate, the diagonal, in inches, is equal to the square root of 5 squared plus 7 squared, or the square root of 74, which is equal to 8.6 inches.

Now, suppose that we are considering the use, on a 4 x 5 camera, of a lens which at small stops will cover a 5 x 7 plate. To determine the allowable shift we should proceed as follows:

In Figure 1, draw the rectangle *AEHF* the size of the plate—4 x 5 inches. Determine the point *O* where the two diagonals of the rectangle intersect. With *O* as a center, draw the image-circle with a diameter of 8.6 inches, as calculated above.

If we wish to find the permissible shift with the long side of the plate vertical, project these sides, *AF* and *EH*, until they intersect the circle at points *A'* and *E'*. Connect these points. The distance *AA'*, which is, of course, equal to *EE'*, is the distance which the lens may be shifted without passing outside of the image-circle.

Similarly, by projecting the sides *AE* and *FH* until they intersect the circle, we may determine the shift allowable with the long sides of the plate horizontal.

Where drawing instruments are not easily available, but a table of natural trigonometric functions is handy, the shift may be very easily calculated and only a rough diagram need be

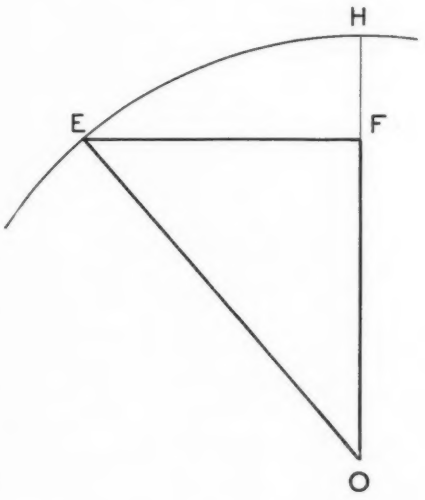


FIGURE 2 EDWARD C. JONES

drawn to help the keep problem clearly in mind.

In Figure 2, *O* represents the center and *EH* an arc of the image-circle, the diameter of which is arrived at as outlined above. The line *EF* represents a half-side of the plate in question when the lens is shifted as far as its covering-power will permit. Either the long or short side of the plate may be used, depending upon which condition we are interested in at the time.

From the data available we know the length *EF*—half-side of the plate we are to use—and also *OE*—half the diameter of the image-circle.

Now $\frac{EF}{OE}$ = sine of the angle *EOF*, and from a table of natural sines we can find the value of the angle. Also *OF* = *OE* cosine *EOF*, and since we know the value of *OE* and also the angle *EOF*, we can calculate the value of *OF*. Subtracting from *OF* the value of the other half-side of the plate—the long side, if we used the short side as *EF* and vice versa—we arrive at the distance that the lens may be shifted.

It is necessary of course, to make the whole calculation either in inches or in centimeters. Since the covering-power of a lens is given when the lens is focused at infinity, and since the angular shift of the lens will be less for a given movement of the lens in a vertical plane when focused on near-by objects, owing to the greater distance from the lens to the plate, the results obtained as above will be safe for any condition under which the lens may be used; and, if the bellows-extension is considerably increased, the lens could be shifted further without passing the limits of the image-circle.

As a numerical example of the second method, suppose that we assume a 9 x 12 cm. plate in connection with which we wish to use a lens of 4-inch focal length, which at small stops will cover a 4½ x 5½-inch plate.

Since most of our dimensions are in inches, we should first convert the plate-size to be used into the same units, and since 1 inch equals 2.54 cm., a 9 x 12 cm. plate is equivalent to a plate 3.54 x 4.72 inches. The diagonal of a 4½ x 5½-inch plate is equal to 7.08 inches, and therefore half of this, or 3.54 inches, is equal to the radius of the image-circle *OE*.

If we consider the long dimension of the plate as vertical, the distance *EF* is half of the short side, or 1.77 inches.

Sine $EOF = \frac{1.77}{3.54} = 0.50$.

Angle *EOF* = 30 degrees.

Now cosine of 30 degrees = 0.866 and *OF* therefore = 3.54 times 0.866 = 3.06 inches.

The permissible shift therefore = 3.06—2.36 = 0.7 inches—2.36 being half the long side of the plate.

The calculation when the long side of the plate is horizontal would be the same except that sine *EOF* would in that case be $\frac{2.36}{3.54}$ and that, after determining the new value of *OF*, we would subtract 1.77 from it to obtain the shift under these conditions.

If an extreme wide-angle lens is under consideration, two points will have to be carefully checked on the camera: *First*, it may be that the rise and fall of the camera-front is less than the shift the lens will allow and, hence, full use cannot be made of its extra covering-power. *Second*, the bellows may not permit extreme shifting of the front with a short-focus lens without cutting off light from part of the plate. These two points merit attention.

Side Roads

Me for the side road, the only road that leads through virgin, unspoiled country. Hiking along a dirt side road, you will find the landscape sprawling pictorially, careless and comfortable, just about as it came from the hand of Dame Nature. Watch this same scenery for several weeks after an improved road goes through and you will find that everything in sight will be completely touristised, barbequed, and suburbanised.

The old homes, the rail-fences, the sheep and haystacks will all have become primly self-conscious; all spruced up for Sunday drivers and gas consumers; determined to look as well as anybody and, if possible, exactly like everybody else. Oh, very neat and ritzy, and all that—but no longer "country."

So me for the side road, the old dirt road, the narrow road with a shallow ditch on either side; where there are no onlookers and no hot-dog stands; where the smell of gas is unknown and the honk of the auto horn is seldom heard; where no one cares how one looks. Me for the yellow road, the forgotten road which goes nowhere, but which leads one everywhere. And do you, please, keep to the main road, lest this old forgotten rut road become a main road, too.

Thru the Darkroom Door.

XUM

"The Universal Developer" from a New Angle

R. C. MIDDLETON

MUCH has been said about the "universal developer" formula; usually the result is a compromise. We may take for granted that the manufacturer's formula for a certain emulsion is the best for that emulsion, for, if he knew of a better one, he'd speedily publish it. But, you say, that is the difficulty: If I'm to develop this film with this formula and that plate with that formula, and "t'other" paper, bromide, lantern-slide, or what not, with still other formulas, I'd have to have a young warehouse to hold all of my bottled solutions, to say nothing of the hours of time I'd have to spend in mixing them. Listen, here's the scheme.

First of all, I want you to think of chemicals in solution, not as so many ounces to the pint, pounds to the gallon, and so on, but, in each and every case, as so many *grains per ounce of working solution*. To make this clear—and clear it must be, or the scheme flops—let's take a typical formula and examine it.

E. K. Co. Developer for Azo giving blue-black tones (D-73)

Metol (Elon)		40 grs.
Sodium Sulphite	1 oz.	140 grs.
Hydrochinon		155 grs.
Sodium Carbonate	2½ oz.	
Potassium Bromide		12 grs.
Water to make total of	32 oz.	

Use one part stock to two parts water.

Now, then, it says: One part stock to two parts water. That means, if we diluted the whole amount right now, we'd have 32+32+32 or, 96 ounces of working developer.

All right! Now refer to the formula. It says: Metol, 40 grains. That means there are 40 grains of metol in our 96 ounces of working developer. What we want to know is: How many grains of metol do we have in *one* ounce of working developer? Easy: 96 divided into 40 gives 0.416 grains per ounce, which we can call, practically, 4/10 grain per ounce.

In the same way, by simple arithmetic, we can find out the grains per ounce of all the constituent parts of this developer or any other developer. I'll go into this a bit more fully later on; so let's get to the meat of this scheme in order that you can make up your mind whether to finish reading it or skip on to the next article.

Four bottles of solution is all you need in order to have at hand the correct manufacturer's formula for any film, plate, contact paper, enlarging paper, etc., only provided you are satisfied to use metol and hydrochinon as the developing-agents. And I want to say right now that, in my considered opinion, based on fourteen years' experience as a professional photographer, you can't beat M-Q for a general all-round developer.

In the first bottle, which we will call "A", we have 3 grains of metol per ounce of solution.

In the second bottle, or "B", we have 10 grains of hydrochinon per ounce of solution.

In bottle "C", we have a 10 per cent. solution of sodium carbonate, which figures out as 44 grains of carbonate per ounce of solution.

In bottle "D" is just our old friend, saturated solution of potassium bromide, which figures 264 grains per ounce or, more conveniently, 0.55 grains per drop or minim.

The sodium sulphite is divided and balanced between bottles "A" and "B", thus serving as preservatives of the metol and hydrochinon and need not enter further into our calculations.

I usually make up the "A", "B", "C" solutions in gallon bottles. "D" is better in a four-ounce narrow neck bottle fitted with a medicine dropper having a *curved* nozzle.

Here then, is the idea. Incidentally, realize how easy these solutions are to mix.

"A"—*3 grains Metol per ounce.*

Water to make	1 gal.
Metol (Elon-Pictol, etc)	384 grs.
Sodium Sulphite (dry)	6 oz.

"B"—*10 grains Hydrochinon per ounce.*

Water to make	1 gal.
Hydrochinon	2 oz. + 400 grs.
Sodium Sulphite (dry)	6½ oz.

"C"—*44 grains Carbonate per ounce.*

Water to make	1 gal.
Sodium Carbonate (dry)	12¾ oz.
(If mono-hydrated, use	14¾ oz.)

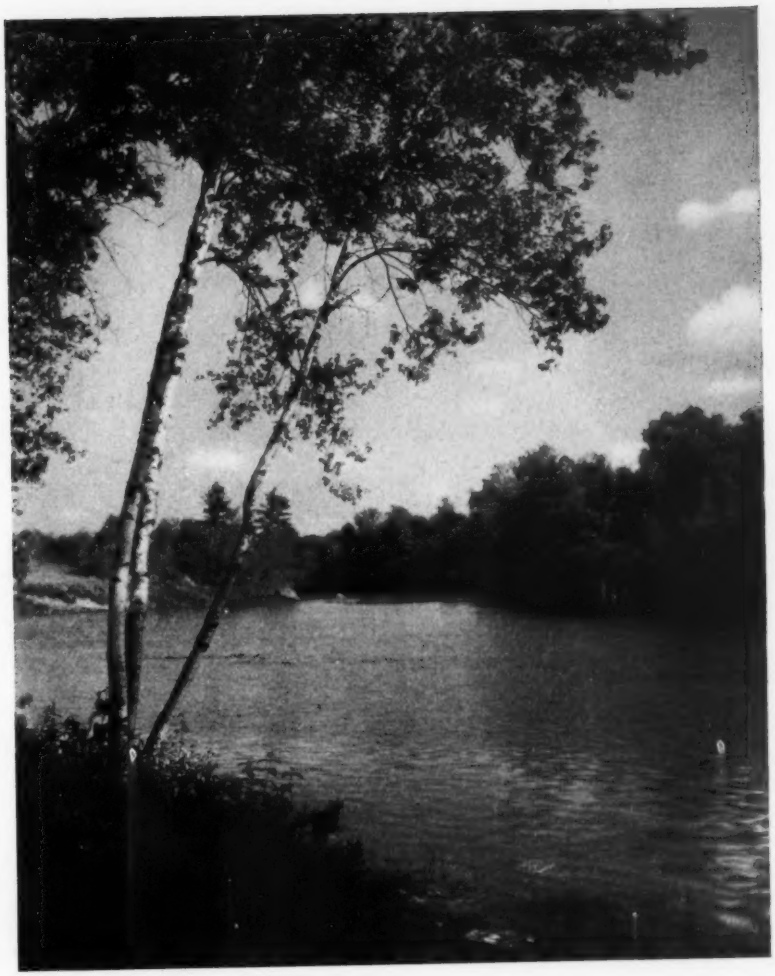
"D"—*.55 gr. per minim.*

Water	4 oz.
Potassium Bromide in excess of 264 grs. per oz.	

Put in plenty potassium bromide, if it all dissolves. Put in more, till there is definitely some that won't dissolve. You now have a saturated solution. If you prefer to use 10 per cent. solution, dissolve one ounce in a few ounces of water and make up to 10 ounces total, but in this case multiply all quantities of "D", as called for in this article, by 6.

Now we'll have to go back and finish up our M-Q Azo developer in grains per ounce.

We find that it figures:



FRIENDLY BIRCHES
GEORGE W. FRENCH
HONORABLE MENTION—WATER-SCENES

WIND AND SUN — WALTER RUTHERFORD

HONORABLE MENTION—WATER-SCENES

Metol	4/10 gr. per oz.
Hydrochinon	1-6/10 gr. per oz.
Carbonate	11-5/10 gr. per oz.
Bromide	⅛ gr. per oz.

Suppose we want to make up a quart or 32 ounces of working solution. In this 32 ounces we would have:

12.8 grs. of Metol (*i.e.*, 32 × 4/10)
51.2 grs. of Hydrochinon
368.0 grs. of Carbonate
4.0 grs. of Bromide

How much "A", "B", "C", "D" must we use to get the above quantities?

Well, for example, there are 3 grains of metol in every ounce of "A", and we want 12.8 grains; therefore we use 4¼ ounces of "A". Similarly, since there are 10 grains of hydrochinon in every ounce of "B", and 44 grains of carbonate in every ounce of "C", we use 5 ounces of "B" and 8-4/10 ounces of "C", then 7 drops of "D", since there are .55 grains per minim in "D".

Not so hard, eh? It takes a long time to tell it—longer than it would have taken to mix all the stock bottles and have your tray of developer ready to use. But, you see, you only have to work out this bit of brain loosener once for every formula and you've got it for all time.

Inasmuch as I've already worked out a great many, if you'll take my word for it—and presupposing the indulgence of Mr. Editor—I'll tabulate the quantities of "A", "B", "C", "D" for a number of formulas.

It occurs to me, before I start the table, that you might have a little trouble with this 1/10-ounce idea. There are several ways to get around it. You can have an ordinary 30 cubic centimeter graduate, and since 30 cubic centimeters are about equal to one ounce, 1/10-ounce equals 3 cubic centimeters; 4/10-ounce equals 12 cubic centimeters, and so on.

Another way is to take your one-ounce graduate, marked off in drams—one dram equals one-eighth ounce—and mark with a file the approximate position of the tenth-of-ounce divisions, bearing in mind that two drams equal one-quarter ounce, equals 0.25 ounce, and so forth.

Another dodge for those who wish to be very—if unnecessarily—accurate. Any liquid quantity up to 10 ounces may be divided into accurate tenths as follows: To the unknown quantity of liquid, add enough water to make exactly 10 ounces. Of this dilution take one exact ounce, this giving you 1/10 of the unknown. Have

you ever tried to pour out, say, seven drops of acid or something? Apply the above idea. Have you ever tried to weigh out accurately three grains of something? Ditto.

[We feel indebted to Mr. Middleton for giving us something different and at least worth consideration. It is human nature to question anything that is new; but, on the other hand, it is to our advantage to welcome whatever promises to lighten our mental and physical labors. If it were not for experimenters like Mr. Middleton, we might still be using view-cameras instead of the modern efficient pocket-cameras. It may be stated that virtually all of our modern photographic equipment for amateur use was evolved directly and indirectly from men and women who liked to experiment and to do things in a different way.—EDITOR.]

Developer for	"A"	"B"	"C"	"D"	*Water to make*	
Azo Commercial, Blue-black tones (D-73)	4¼ oz.	5 oz.	8-4/10 oz.	7 drops	32 oz.	
Azo Portrait (D-41)	4 "	4 "	3-1/10 "	12 "	"	
Velox (D-72)	7½ "	8-6/10 "	11 "	24 "	"	
P. M. C. Normal (D-72)	3¼ "	3½ "	4½ "	12 "	"	
Eastman Portrait Bromide (D-49)	7½ "	8 "	7¼ "	30 "	"	
Vitava Athena, Grades A, B, C, D, E, T (D-52)	3¾ "	4½ "	2½ "	20 "	"	
Vitava Zelta	3¾ "	4½ "	2½ "	40 "	"	
Vitava Rapid Black	7½ "	9 "	5-1/10 "	40 "	"	
Vitava Alba	7½ "	9 "	5-1/10 "	10 "	"	
Vitava Athena, Grades A, B, C, D, E, T (D-64) *SOFT*	8½ "	2¾ "	3¼ "	24 "	"	
Vitava Athena, Grades A, B, C, D, E, T (D-64) *MEDIUM*	4¼ "	6½ "	3¼ "	24 "	"	
Vitava Athena, Grades A, B, C, D, E, T (D-64) *HARD*	4¼ "	11½ "	5 "	46 "	"	
Vitava Etching Brown (D-65*a*)	4¼ "	4 "	3 "	35 "	"	If warmer tones, add 30 minims 10% Hydrochloric Acid.
Vitava Athena, Old Master and Linen Finish	4¼ "	4 "	3 "	25 "	"	
Vitava Athena, Grade F	4¼ "	4 "	3½ "	25 "	"	
E. K. Co., M-Q, Films (D-61-A) Tray	7½ "	4¼ "	2 "	23 "	"	
B-J M-Q, Films, Tray	9½ "	6 "	6 "	23 "	"	
E. K. Co., Process M-Q (D-11)	5 "	13¾ "	8-1/10 "	150 "	"	If to be saved, add 1½ oz. sod. sulphite.
E. K. Co., X-Ray (D-19)	11 "	14 "	17 "	55 "	"	If to be saved, add 2 oz. sod. sulphite.
E. K. Co., Lantern Slide (D-34)	10 "	11 "	2½ "	25 "	"	
E. K. Co., M-Q-Pyro (A fine all-round negative developer).	4-6/10 "	2-7/10 "	3-1/10 "	9 "	"	Plus 82½ grains Pyro.
E. K. Co., M-Q-Borax, Fine grain and detail (D-76)	10 "	7-5/10 "	" "	" "	"	Dissolve 30 grs. Borax in 15 oz. hot water, add 2 oz. sod. sulphite, mix this with the "A" & "B".

XUM

The Photographic Viewpoint

GEORGE W. BUCKLIN

WERE we thinking only of pleasing our customer for the moment, we should always try to see, with our lens, just what he would be accustomed to see. Our camera would be at the height of his eyes and at his accustomed place in the store. Many an advertising-man has had to fight the desire of the manager for illustrations of *how* his product was made rather than of what the merchandise would do for the satisfaction of the purchaser.

There seems to be no ideal viewpoint for a very tall building in a confined location. We usually make the picture from as high a viewpoint as can be found opposite, and, although the upper part looks correct, the lower must be thrown into a subordinate tone or it will make us dizzy. One old axiom is: "Use the longest focal length possible", and another is the old Dallmeyer portrait formula: "Use a focal length as long as, or longer than, the distance from which the finished picture will be viewed; *i.e.*, twelve inches for a cabinet-sized picture."

One of the oddest of our modern problems came with the advent of the long, low, and wide garage building, usually on a prominent corner. Too high a viewpoint and a long-focus lens gave a dwarfed appearance as to height. A wide-angle lens gave us height and importance of the main corner, but produced an edge view of either side which destroyed the appearance of the area covered by the building.

I have always maintained that every convention I have attended paid dividends on the expenses and often furnished new profits that shortly wiped out all cost of the trip. Here is one of them—not picked up from the program, but from a comrade of the craft.

When photographing the type of buildings I have been describing, use the longest possible focal length that the width of street will allow—this is usually short; at best, 6 to 9 inches. Make two equidistant views from two viewpoints, each showing an edge view of one side and as broad a view as possible of the other. This preserves the appearance of height found in the wide-angle view, and even goes the long-focus lens one better in showing the extent of area covered by the building.

The real trick is so to arrange the height and angle (perpendicular) of the corner of the building, in both negatives, that top, bottom, sidewalks, and roadway lines will all match exactly when one of the prints has been trimmed, and the edge sandpapered and fastened with rubber cement onto the other print. Rubber-cement is used, as it does not curl the paper; also, it is removed easily if it runs over onto the surface of the prints. A third negative or copy is made of combined print. Clouds may be worked into the combined print, or a white card vignette will produce a clear, white sky if moved above the building-outline while making the copy.

Where street, sidewalk, and grass are good on one side and there is an unimproved street on the other side, a film negative of one side may be turned over and made to furnish these features for the other side. Where but one print is to be made, Circut paper can be used, and,

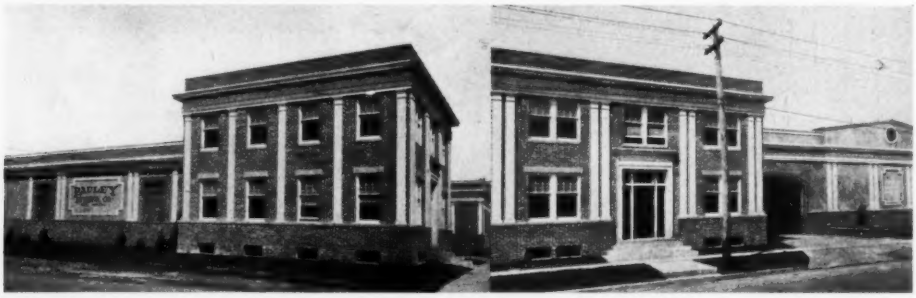


FIGURE 1 GEORGE W. BUCKLIN

Showing part of two pictures made to be joined.

XUM

FIGURE 2 GEORGE W. BUCKLIN

Showing two unretouched pictures joined to make complete wide-angle view. Retouching eliminated telephone-poles and wires, and improved the foreground.

by very careful masking and penciling on the back, double printing may be resorted to with very satisfactory results.

If our list price is three dollars for an outdoor negative, the price of the first combined print would be ten dollars, as we have made a minimum of three negatives and three prints, leaving one dollar for combination charge.

You will note the radical difference from where we pivot our lens and make and combine three or four prints to produce an extreme-angle interior view. In making measurements for matching, I have found it best to use a white card, measuring from the bottom edge of the groundglass, and marking the matching points for street line, sidewalk, and top and bottom of building. Otherwise you will have too much sky or roadway.

If the building is photographed with the swing-back so that the building slopes in at the top a trifle, the result is a double perspective that is pleasing, although the sky and foreground will have to be trimmed considerably in order to form a straight line across to print. As the sky is easily manufactured, it is best to take plenty of foreground.

In the enclosed illustration of a local lumber-yard, the grass and roadway of the right side is used twice, because the left side of the street was under construction at the time the photo-graph was made. The area covered is 160 feet deep on the left side of the picture, and 200 feet on the right, or the front of the building. As the streets meet here, there is only the diagonal of the sixty-foot street that can be used in plac-ing the camera. Even an extreme 100-degree wide-angle lens will not give it all, because of trees in the boulevard. In fact, another photo-grapher looked the job over, said it couldn't be done, and went home.

Trust Thyself!

Of all the writers with whom we are acquainted, none other had the happy faculty that characterizes the writings of our own beloved Ralph Waldo Emerson, of putting so much thought into a small compass of words. Emerson wrote:

"Trust thyself; every heart vibrates to that iron string. Insist on yourself; never imitate. That which each can do best, none but his Maker can teach him.

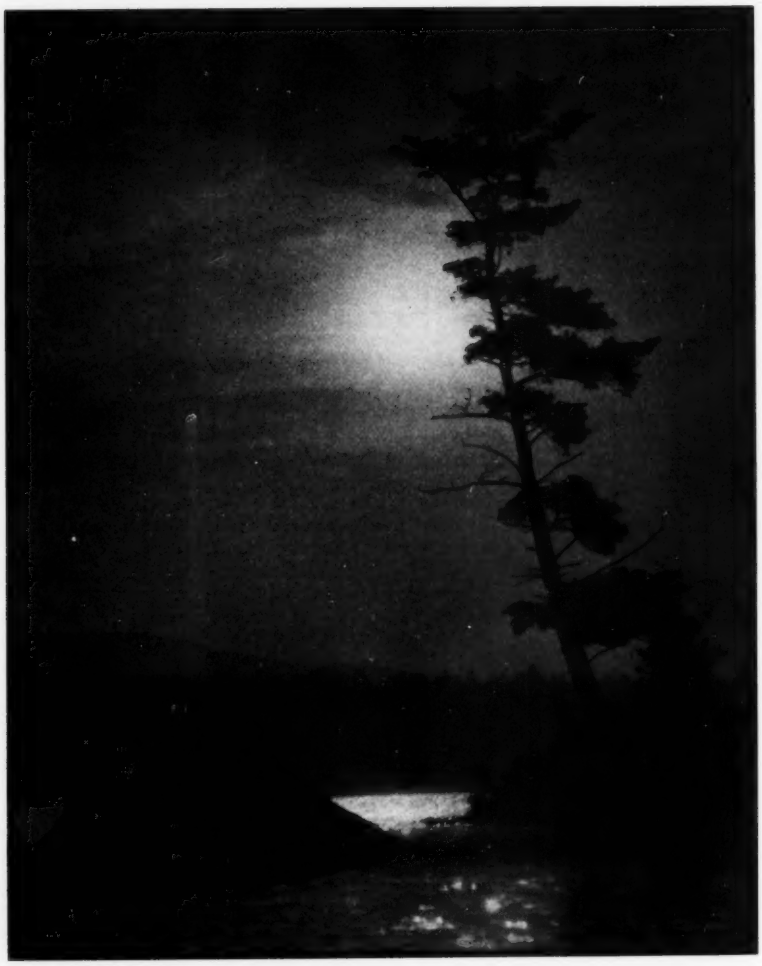
"There is a time in every man's education when he arrives at the conviction that imitation is suicide; that he must take himself for better, for worse, as his portion.

"The power which resides in him is new in nature, and none but he knows what that is which he can do, nor does he know until he has tried." *Contact.*

The Jealousy of Genius

One would expect genius to be the best judge of genius; but it is not so. This matter of recognition of the qualities of other men does not seem to be connected with the intellectual or even intuitive side of a man. An artist may have quickness and depth of vision, a wide sympathy with suffering humanity, an innocent and childlike ecstasy over the beauty of nature, and yet fail utterly to approve those same qualities when displayed by a rival who in reality is no rival. Richard Church in *The Spectator.*

XUM



IN NEW HAMPSHIRE
L. P. TABOR
HONORABLE MENTION—WATER-SCENES

EDITORIAL

"Taking It on the Chin"

IN boxing there are many descriptive expressions which fit in neatly to stated situations in less strenuous occupations. As we understand it, the phrase "taking it on the chin" does not necessarily imply a knockout; but it does mean that the recipient has been given a blow which only superb physical condition prevents from being a knockout. As applied to more peaceful pursuits, we believe that this boxing-phrase may be used rather fittingly to describe the position of the photographic publishing industry in its relation to the majority of camera-owners. We seem to be "taking it on the chin" in that, from the several million of camera-owners in the United States and Canada, the combined photographic publications cannot seem to muster a net paid circulation of even a hundred thousand subscribers. In most other popular professions, sports, or pastimes, the publications devoted to those subjects attain comparatively large circulations. Is the photographic press, in general, trying to please an enthusiastic minority, and thereby failing to meet the needs of the majority? Are the photographic publications "taking it on the chin" in that they are failing to meet a very real need among the thousands, if not millions, of camera-owners who are termed snapshooters? In our desire to further the interests of salons, pictorial photographers, camera clubs, artistic principles, technique, and similar subjects, have we drawn away from those who need practical help in the fundamentals? In short, do we figuratively encourage a man to buy a camera and then tell him politely to run along with it and not bother us again until he has had a print hung in a salon and has become a full-fledged pictorialist? Whatever may be the reason, the fact remains that thousands of camera-owners do not read photographic magazines and, furthermore, seem to have no desire to do so. Yet many of these same camera-owners are interested in radio, hunting, yachting, and golf and read with evident eagerness publications devoted to these subjects. Let us "take it on the chin"—have the photographic publications tried to serve the great majority or have the photographic magazines gone on in their own way apparently expecting that camera-owners should, as a matter of course, be interested in what was offered? In short—and here is almost a knockout—are the photographic magazines in a rut of their own making?

For a number of months, without fear or favor, we have been trying sincerely and honestly to account for what seems to us to be a vital question, not only for the photographic publishing industry but for the millions of camera-owners as well. We have looked to ourselves, first of all. We have solicited expressions of opinion from leading pictorialists on the one hand and so-called snapshooters on the other. We have received criticism, suggestions, and praise. This editorial is based on investigation, correspondence, and many unsolicited expressions of opinion. Whatever may be said or thought about the matter, the problem is to find the reason why several million camera-owners do not read photographic publications. Is it all due to failure of the photographic publications to meet a need, or is it due to the camera-owners themselves? In either case, how may a mutually helpful and profitable contact be firmly established? It is done successfully in several other fields of activity; why is it not done in photography? What, if anything, makes photography different?

We believe that all will admit that photography offers a wonderful opportunity for technical and artistic good fellowship, that it is one of the most popular of pastimes, and that it is today vitally important to the success of many professions and industries. There would appear to be every reason for the existence of several popular and widely circulated photographic publications, each serving its readers effectively. If photography were limited to a few specialists and made no appeal to the public at large, the situation might easily be accounted for; but, on the contrary, photography has a tremendous appeal and is one of the most popular pastimes in the world.

It is not always easy to admit that we may not be measuring up to our responsibilities and to our opportunities; but we believe that the photographic publishing industry as a whole will welcome constructive suggestions which will enable it to serve the millions who need the very help, encouragement, and inspiration which well-edited, progressive, and attractive photographic magazines should give them.

XUM

ADVANCED COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $10.00.
Second Prize: Value $5.00.
Third Prize: Value $3.00.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded will receive a neat silver cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs, and to responsible organisations for exhibition-purposes, *free of cost.*

Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.

2. Not more than two subjects may be entered. *Composition, exposure and photo-finishing must be done by the competitor.*

3. Prints on rough or linen-finish surface are not suitable for reproduction. *Mounts must not be larger than 16 x 20 inches.* Prints may be mounted or unmounted.

4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.

5. Prints receiving Prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.

Photo-Era Prize Cup

6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data.

7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

8. Competitors who have won three first prizes within a twelvemonth become ineligible to receive prize cups in this competition for *one* year thereafter.

AWARDS—ADVANCED COMPETITION

Subject—WATER-SCENES

Closed November 30, 1929

First Prize . . . . . Hugo Raeth
Second Prize . . . . . Charles C. Blanchard
Third Prize . . . . . L. H. Longwell

Honorable Mention: Arthur W. Ambler; Dr. Frederic W. Burcky; Karl Butka; Daisy B. Chapell; Carl D. Clark; A. W. Clark; Charles Clayton, Jr.; H. G. Cleveland; Van F. Dunlop; James P. Dunn; George W. French; M. Gurrie; William L. Haemer; Ralph L. Harmon; W. K. G. Job; U. Stephen Johnson; Elaine H. Kern; Dr. Maximilian Kern; Dr. K. Koike; Warren R. Laity; K. Matsuki; Rael Mawrence; Henry M. Mayer; Wm. J. McCune; Edward McMahon; S. M. McNair; R. Miles; George Miller, Jr.; John C. Moddejonge; N. J. Nalawalla; M. A. Obremski; Clarence Ponting; Ralph F. Pratt; S. F. Racine; Chas T. Ramsden; Jesse Rice; Walter Rutherford; W. C. Sawyer; Mario Lucio Scacheri; H. K. Shigeta; U. Shindo; Henry Sill; Kenneth D. Smith; Dr. F. F. Sornberger; Orrin E. Stanley; Charles S. Strong; C. A. Shaw; L. P. Tabor; Dr. Max Thorek; A. M. Tomlinson; Horace Tyzack; Wm. O. Yates.

XUM

BILLOWS

HUGO RAETH

FIRST PRIZE—WATER-SCENES

Second Prize

ADVANCED COMPETITION

WATER-SCENES

PEACEFUL PACIFIC

CHARLES C. BLANCHARD

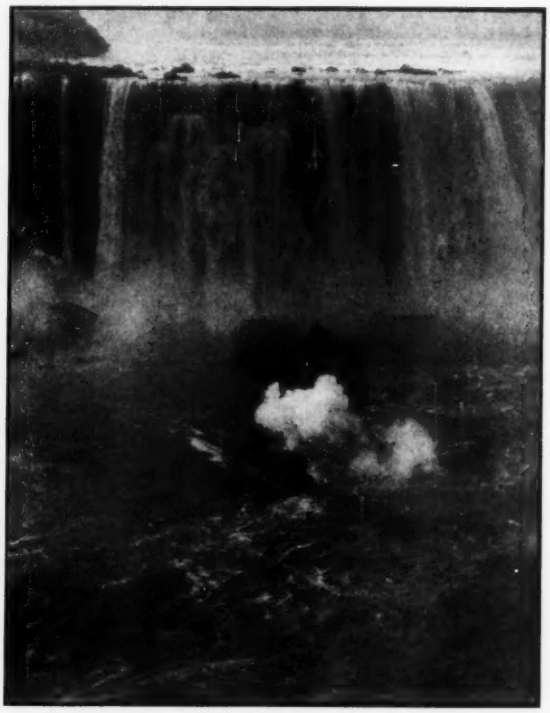
Third Prize

ADVANCED COMPETITION

WATER-SCENES

"MAID OF THE MIST"

L. H. LONGWELL



SUBJECT FOR NEXT COMPETITION

ADVANCED WORKERS

Subjects for Competition—1930

"My Home." Closes January 31.
"Portraits." Closes February 28.
"Indoor-Genres." Closes March 31.
"Miscellaneous." Closes April 30.
"Commercial Illustrations." Closes May 31.
"Architectural Subjects." Closes June 30.
"Pictures of Children." Closes July 31.
"Miscellaneous." Closes August 31.
"Outdoor-Genres." Closes September 30.
"Animal Pictures." Closes October 31.
"Water-Scenes." Closes November 30.
"Miscellaneous." Closes December 31.

Indoor-Genres

For the benefit of those of our readers who have been contributing prints to our competitions since our last Indoor-Genres competition, we should like to assure them that the term "Indoor-Genres" is not quite so complicated and technical as it may sound. There is nothing exactly adequate in English to take the place of the French *genre*. There does not seem to be one word that answers the requirements. Therefore, the word *genre* has been adopted in art and photographic circles throughout the world. Nevertheless, many of our readers would like to know what it is all about in plain English. Our own definition of the term "Indoor-Genre" is a picture of a person engaged in doing something without appearing conscious of the photographer's presence. In other words, it is a picture of a person doing something in the office, shop, or home. Obviously, this offers opportunities in many directions to the photographer who is alert and quick to make the most of opportunities. A special effort should be made to make pictures which are a true expression of the personality and activity of the subject. That is, if a man is not accustomed to smoking a pipe, he should not be photographed with a pipe, either in his mouth or in his hand. If a woman is known to dislike animals, she should not be photographed with any animal in evidence. In other words, the objective should not be a pretty picture, but rather a truthful one.

The subject of Indoor-Genres offers a varied appeal in that all manner of lighting may be used. It may be entirely artificial, or it may be a combination of daylight and artificial, or it may be daylight alone. It will be a matter of interest and practical value to each participant in this competition to try his skill in making a picture of the subject wherever the subject may normally be found—at work or at play. This competition is always a popular one and seems to be thoroughly enjoyed by those who take part in it.

A. H. Beardsley.

MORNING IN THE BARN — WALDEMAR GLASS

EXAMPLE OF INTERPRETATION

XUM

BEGINNERS' COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $7.50.
Second Prize: Value $3.50.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded, will receive a neat silver cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker of the picture.

Rules

1. This competition is open only to beginners of limited experience with practical camera-activity. *Composition, exposure and photo-finishing must be done by the competitor.*

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired.

5. Prints on rough or linen-finish surface are not suitable for reproduction. *Mounts must not be larger than 16 x 20 inches.*

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request.

7. Prints receiving Prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of PRIZE
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

PRIZE-WINNERS' CERTIFICATE

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of *Honorable Mention*
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

HONORABLE MENTION CERTIFICATE

AWARDS—BEGINNERS' COMPETITION
Subject—MISCELLANEOUS
Closed November 30, 1929

First Prize . . . . . Clair A. Brown
Second Prize . . . . . Sorab J. Kharegat

Honorable Mention: James Bealmear; James A. Bell; J. Daniels; James R. Dunlop; Harold Franklin; Gladys L. Gilman; L. P. Gravel, Jr.; Dr. Kelley Hale; Gertrude Henneg; George G. Jensen; Thomas M. Knight, III; Walter Lipkau; H. Luscombe; Robert W. McKee; R. E. Midgley; Esther V. M. Pierce; Joseph B. Rattley; Edwin A. Reeve; Gaston Remy; E. G. Royer; J. Herbert Schneider; Leroy H. Schneider; Elton A. Smith; Elsie Walker; Edward D. Wilson; Otto Wilson; A. Worrall; Walter E. Woestman.

First Prize

BEGINNERS' COMPETITION

MISCELLANEOUS

A BLEAK MORNING

SORAB J. KHAREGAT

Second Prize

BEGINNERS' COMPETITION

MISCELLANEOUS

AN ARCHWAY AT NIGHT

CLAIR A. BROWN

OUR ILLUSTRATIONS

ERNEST H. WASHBURN

To be unacquainted with the work of Sophie L. Lauffer in pictorial photography is to acknowledge being unposted in this field, the past several years. And to any who are in that position, let us say that they have missed knowing some of the finest pictures in American pictorialism, and we recommend that they remedy that shortcoming without delay, for they have much enjoyment in store. We cannot recall just when we began to see her work, but distinctly remember that it impressed us immediately by its strength and directness. The influence of Clarence White's teachings made its impress upon her, as it has upon many others. All who ever came in contact with him speak of him with the same warmth as does Sophie Lauffer.

The picture she has chosen as an example of her work bears a slight resemblance in composition, with its trees and figures, to certain of the better known works of Corot. There is contrast and harmony—contrast of age and youth as well as contrast of ugliness and beauty, between the two principal trees, but the white-clad figure claims final attention. There is something to study in this picture. Data: Bromoil print.

K. Matsuki's beautiful and fine print, "Sunset in the Fall", seems to us to be consistently Japanese in effect and treatment, being made up of a few simple tone-masses, with a spot of intense brilliancy to compel our attention. The silhouetted figure of the yacht forms a complete balance, preventing any one-sidedness. At first glance, the open area of sky appears too vacant, but it affords a feeling of the grand scale of the sky in nature. Man's puny machine-made contrivance appears in its true relative importance—that of a mere speck in the scheme of things. It is an impressive picture, which any camerist might be proud to have made, particularly the present critic, who has a special leaning toward, and love for, marines.

Data: Made at Seattle, at 7 P.M., in August; overcast sun; with Ica camera, 3¼ x 4¼, equipped with Carl Zeiss Tessar, of 13.5-cm., focus. Exposure, 1/25 second under 5-times filter, at stop F/4.5, on Eastman rollfilm. Developed in pyro-soda and enlarged on P. M. C. No. 8.

"The Parade of Snow-Men", by H. K. Shigeta, is as beautiful a piece of work in composition and tone-values as one ever sees; in fact, the values are so perfect that one almost senses the colors of the original subject in nature. The brilliancy of the "Snow-Men" is in exquisite contrast with the blue of the water, and the shading of one upon another, brought about by the angle from which the sunlight fell upon them, produces a strong feeling of form—an almost stereoscopic relief. The foreground masses are fine in texture and value, also, although the interest centers upon the snow-men, as it should, owing to their position and relief. A high horizon line was chosen, properly, as there is nothing of interest above it. It might have been trimmed off at the line without hurt to the picture. The artist chose well and executed with fine discrimination and artistic feeling, as well as with perfect photographic technique, to produce this fine result. It was hung at the Chicago Photographic Salon of 1928.

Data: Made in February at 4 P.M., in weak sunlight. Exposed 1/25-second at F/8, under 3-times filter, with Verito lens, on Eastman Panchromatic cutfilm. Developed in pyro-soda and enlarged on Eastman Portrait Bromide.

Mr. Clarence Ponting gave valuable points, in last month's PHOTO-ERA MAGAZINE, and now gives further valuable information on another phase of print-making. To simulate moonlight, a dark sky is a *sine qua non*, as nothing is more ridiculous to the discriminating observer than so-called "moonlights", with bright skies of almost daylight intensity. Mr. Ponting has realised this and has succeeded admirably in keeping his skies dark by avoiding strong negatives. His first methods of introducing a quasi-moon works out well, but some may not be ambitious enough to follow it, or have the required equipment, in which case they may prefer the second method, as demonstrated in Figure 3. The writer has experimented in quasi-moonlights by using a graduated filter on the lens. This works out fairly well where the sun is obscured, or nearly so, behind mottled clouds. It is particularly effective where there is snow on the ground to catch the highlights. Thin negatives and deep printing are necessary. The results, however, have been effective, and have puzzled some experts to decide whether they were actual or faked.

Of the three prints here shown, we incline toward Figure 1, as the "moon" appears in better relation to the scene. Owing to the larger area of background and foreground, it seems to "fit" better. A little might be trimmed from the right to decentralise the moon and its path of reflected light on the water.

Those who are following Samuel Racine's interesting articles will be very much interested in Part II, in this issue. The several prints illustrating it are little gems of record-photography, being 3¼ x 4¼ in the originals. Mr. Racine used his camera skillfully and effectively, and, where opportunity was afforded, with a due regard to good composition. Pictorially considered, No. 1 of Group I appears to best advantage, showing good arrangement upon a solid base, with good lines leading up to the real point of interest. No. 2, however, is full of human interest and tells its story well. No. 3 of Group II is also of interest. The print "Maligne Canyon Spring" is made especially interesting by the context, photographically, as well as from a nature-wonder viewpoint. The author studied his problems well and solved them with good judgment.

Data: Group I: "O. K. Mountains", Protar lens at F/32, one-second exposure with filter. "Skeena River Ferry", F/5.6, 1/25-second on Agfa filmpack. "Chimdemash Creek", F/4.5, 1/5-second on Agfa pack. Group II: "Buckley Gate", F/11, one second, on Agfa pack. "Lake Beauvert and Mt. Edith Cavell", F/22, one second on Agfa pack. "Totem Pole at Jasper", F/4.5, 1/5-second on Agfa pack. "Maligne Canyon Spring", F/4.5, 1/25-second, on Imperial Eclipse Ortho.

"Home of Abraham Lincoln", by C. J. Greenleaf, made nearly sixty five years ago, speaks well for the photographers of that time. There was a certain good quality in the old wet-plate negatives which is hard to beat, even today. The author's account of the making of this photograph is interesting. Even at that time, photographers took chances to get wanted photographs.

A fine bit of pure landscape is George W. French's

"Friendly Birches". A subject such as this is always a joy to find for the one who loves to get under the focusing-cloth and carefully arrange the composition and focus upon the ground-glass. The pleasure of seeing the image in all its brilliancy of color is ample recompense for the effort of setting up the camera, even though no exposure be made. In this instance, the artist saw that it was good, and with skill, born of experience, made an accurate record. But it is more than that, for it is a fine composition, and the proper lighting and sky-setting were present. The shadows in the immediate foreground and across the river may be a little heavy, but the ensemble effect is fine, and we feel the beauty of the day and the landscape, which Nature has so beautifully presented us, and are glad that we have seen this picture. It is clean and inspiring, as well as soothing.

Data: Eastman 5 x 7 camera; B. & L. lens, of 9-inch focus. Exposure, 2 seconds (or more) at F/16, with K-3 filter, at 3 P.M., in August sunlight, on Eastman Panchromatic film, developed in Metol-Hydrochinon. Print on Azo H. (The picture is of the Great Ossipee River, in New Hampshire.)

"Wind and Sun", by Walter Rutherford, is notable on account of the unusual height from which it was made, which takes it out of the ordinary. The fortunate circumstance which brought the yachts into this interesting combination of positions created a striking effect, decidedly modernistic in its triangular aspect and mottled background. The shadows of the sails, especially the shadow of the sail of the farther yacht, which fills in the center of the group, and that of the one at the left, connecting the whole scheme with the margin, are fine supporting masses and tie the composition. Without them, much of the interest would be missing. These odd combinations do not occur often, and Mr. Rutherford was both fortunate and clever to seize the right instant.

Data: Made in Bermuda, in March, with Miroflex camera; Tessar F/4.5 at F/16, 1/195-second on Gevaert filmpack; M. Q. developer; print on Illingsworth Rough bromide paper.

George W. Bucklin's prints, demonstrating his way out of difficulty, are very ingenious, although, of course, violating all rules of perspective.

"In New Hampshire", by L. P. Tabor, is an effective picture and affords a strong feeling of moonlight, although no such intent is suggested by the author. Aside from this, credit must be given for great cleverness, in seeing and so pleasingly and convincingly rendering the picture. A graduated filter, such as we have mentioned before in these notes, would still further have enhanced the already beautiful qualities in the sky.

Data: Made at Center Harbor, N.H., with 3¼ x 4¼ Graflex and 7-inch B. & L. Tessar, at F/5.6. Exposure, 1/25-second, no filter, at 4.45 P.M., in July; hazy sunlight; Eastman filmpack; M. Q. developer; Velour Black, Veltex enlargement.

Advanced Competition

A GREAT variety of subjects is represented in the prize-winning prints this month, and also among the honorable-mentions. Nearly every conceivable variety has been met with and successfully wrought into a number of fine pictures, which shows that contestants in PHOTO-ERA MAGAZINE'S competitions are keenly sensitive to the beautiful, and skilled in recording it truthfully and pictorially. By entering their efforts in comparison with others of equal skill, they have opportunity to test their strength and strengthen their weak spots, thus gaining ground and progressing, rather than remaining at a dead level and eventually slipping back.

Hugo Raeth's first-prize winner, "Billows", is a very fine piece of pure photography, and the subject is such a one as many would be glad of the opportunity to make, or even to see. The majestic heave of old ocean is graphically expressed, and we feel the massiveness and power of it. The division of sky and water is well proportioned. There is enough of each. At first sight the inclusion of the rail seemed a mistake, but further study convinces us that it was wisely included, as it furnishes something to gauge the size of the waves. Being curved, it is not monotonous. The scurrying wind-clouds tell us of the fresh breeze, which has raised a good sea, and they break up the sky area effectively. The only suggestion we could offer would be to print the sky a little heavier, to increase the feeling of strong wind; but it is good just as it is. We envy the author his opportunity and congratulate him on his successful handling of it.

Data: Made in midocean from Steamer *Columbus*, in September, at 3 P.M.; weather fair, but cloudy. A Miroflex 9 x 12 cm. camera was used, fitted with Zeiss Tessar F/4.5 of 15-cm. focus, and the exposure was 1/100-second at F/5.6, no filter, on Gevaert Super Chromosa (plate). Metol-Hydro developer was used and enlargement on Cyko No. 9.

"Peaceful Pacific", taking second award, is by Charles C. Blanchard, whose finely illustrated article on the Yosemite appeared in the December issue. Mr. Blanchard has proved that he recognises a fine subject and knows what to do with it. His command of his tools is perfect and his judgment unerring. It was a rare opportunity which presented itself and he made no mistake. The composition is good and everything about as it should be. We incline to believe that the feeling of peace and tranquillity would be stronger without the grasses or weed-spikes in the foreground.

Data: Made at Laguna Beach, Calif., in June at about 5 P.M., with a Juwel camera 5 x 7, and Carl Zeiss Protar of 8¼-inch focus. Exposure 1/5-second at F/11, with K-2 filter, on Eastman Panchromatic film, developed in pyro, and printed on Professional Cyko.

L. H. Longwell, winning third prize with "Maid of the Mist", did a fine piece of work. The high placement of the horizon is justified, emphasising the height of the falls, also affording a pleasing division of the print. The base of the falls makes another, but less distinct line, thus making three unequal and agreeable areas. The placement of the steamer is rather too central from the sides for strongest effect. We feel that somewhat deeper printing of the lower third, from about the steamer downward, would further strengthen the whole.

Data: Made at Niagara Falls, N.Y., with a 3¼ x 4¼ Graphic camera, and Tessar lens of 6½-inch focal length, F/4.5. Exposure, 1/10-second in good light, on Agfa pack; M. Q. developer. Enlarged on Gevaert Portrait Bromide, No. K-32.

Beginners' Competition

SORAB J. KHAREGAT of Bombay, India, has submitted a beautiful little sepia contact print, "A Bleak Morning", and has won a very justly awarded first prize. It is a little gem of unmanipulated photography and speaks volumes for the author's ability, both in selection and execution. The placement of the various parts is perfect, and the exposure was made at the most telling instant to hold the cab and dark figure near the dark tree and foreground-shadow, yet relieved against the brilliantly lighted spot on the street—

XUM

a highly effective placement. The smaller, less distinct figures at the left just balance the whole, breaking up the straight line of the curbing and the car-tracks. They also serve to fix the distance and size of the building-mass in the background. The skyline is charming with its variety of line, and the lighting is very beautiful. The whole picture is a gem from every standpoint and is like a little etching.

Data: Made in Bombay, in December, early morning light, on Auto-Filter plate. Exposure, 1/100-second at F/4.5. Contact print, 3 x 4 inches, on Mimosa Cream Matte, double weight.

Second award is won by Clair A. Brown, with a carefully arranged and technically perfect print, entitled "An Archway at Night". We do not think that a better rendition of the subject could be made. The author took full advantage of the conditions and accessories, in order to produce an effective and convincing picture. As a study in lighting by artificial means, and in architectural detail, it is flawless. The tree at the left was used with good judgment to break up, partially, that side of the archway. Development and printing are excellent.

Data: Made at Ann Arbor, Mich., with Zeiss 10 x 15 cm. camera, and Tessar F/4.5 of 16.5 cm. focus. Exposure, 10 minutes at 9 P.M., in October; stop F/4.5, on Eastman Commercial Ortho cutfilm. The developer used was the M. Q.-borax formula recently printed in PHOTO-ERA MAGAZINE. An enlargement was made on P. M. C. No. 9, regular, developed in formula D/72.

The prints on the subject of electric flash are very remarkable. One reads and hears a considerable amount today regarding man-made lightning, but the present writer never has seen photographs demonstrating the emission of such tremendously awe-inspiring discharge. Figure 1 is a fearsome thing. The presence of the man makes us feel more at home, but we prefer it in a photograph, rather than near by. Figure 2 is perfect in every way—a great argument for the use of lightning-arresting devices. Figure 3 is, without any question, the most remarkable photograph of an electrical discharge we have ever seen. The net-like and gauze-like pattern is almost beyond belief or imagination. One could never have enjoyed the beauties of it were it not for photography. Daily, some new development or demonstration of the value of photography to the scientific world is given. Without photography, science could never have advanced to its present extent. The world owes immeasurably to photography for its progress in all branches of learning, many of which could not advance today without its aid.

The Salon Jury

THE success of a photographic salon is largely in the hands of the jury responsible for the selection of the pictures to be hung. Since there is no mathematical formula by which it can be demonstrated that a picture is worthy of Salon honors, and since the standards of art are forever changing, pictures accepted by some juries may be rejected by others. For this reason there has been much criticism of juries. Some workers refuse to contribute to the salons when the jury-system is in force, preferring to exhibit in invitation salons and "one-man shows". Others enjoy the thrill of competition and would lose interest without it.

At Pittsburgh, we have had no thought of abandoning the jury, but we have not hesitated to change the method of judging whenever a suggested change promised to be an improvement. Wishing to have our contributors participate as fully as possible in determining the policy of the Salon, we sent the following circular letter to all Associate Members outside of Pittsburgh:

"That you are genuinely interested in the Pittsburgh Salon is evident from your continued support by contribution of your pictures. Personal contact between active and associate members being impossible in most cases, we want to invite you to offer suggestions and constructive criticism at any time on any phase of Salon-affairs."

"Without doubt the hardest problem in connection with the Salon is judging the pictures. Two things have been consciously sought for in selecting the jurors and formulating the rules under which they work: first, to have the judging absolutely impartial; and second, to have the acceptance of a picture regarded as an honor in itself, making the granting of prizes or awards unnecessary."

"There is much honest difference of opinion among pictorialists regarding the best means to reach the desirable results. The local organisation invites you to express your opinion either by a "yes" and "no" vote on the following questions, or extended comment on any subject.

"Do you favor:

1. A jury of three selected from outside of Pittsburgh?
2. A jury of three with one or two Pittsburgh men?
3. A jury of five with two or three Pittsburgh men?
4. A jury limited to photographers, either professional or amateur?
5. A jury with one or two artists who are not photographers?
6. Shuffling prints and presenting them to jury one at a time?
7. Presenting all of one contributor's prints as a group?
8. Jury to work as a unit, discussing the prints if they please?
9. Jury to work as a unit, voting by secret signal, no discussion?
10. Jury to work individually, voting yes or no, majority vote to decide?
11. Jury to work individually, grading the prints by an arbitrary scale?"

Replies from more than thirty individuals show a very fine spirit of co-operation and a very keen appreciation of the problems which the sponsors of a Salon must face. Let us see how these pictorialists answered the questions, bearing in mind that these writers were thinking of the Pittsburgh Salon. We do not advocate uniformity of Salon-rules or customs. On the contrary, we believe that each exhibition should foster its own traditions.

A tabulation of the "yes" and "no" vote is interesting, but not conclusive. Such a tabulation, combined with comments submitted does, however, indicate the composite opinion of the group.

For purpose of comment we may condense the questionnaire as follows:

Do you favor:

1. Jury selected from outside of Pittsburgh?
2. Jury of five members in preference to three?
3. Jury limited to photographers?
4. Shuffling prints in preference to considering each contributor's prints as a group?
5. Secret vote in preference to open discussion?
6. Grading by an arbitrary scale in preference to majority vote of jury?

(*Continued on page 114*)

THE EDITOR'S CORNER

The Top, the Middle, and the Bottom

As we take the time to look over the work being done in photographic literature, and particularly that devoted to weekly and monthly publications, we sometimes wonder whether photography as it is today can be suitably covered in all its branches by one publication. Of course, it could be done, provided that there were no limitations to the size of the magazine, or to the number of trained writers and editors it could employ. However, assuming for the moment that one all-comprehensive magazine is out of the question, would photography and its future growth be best served if the existing publications were each to select a definite branch or group of branches in the science and art of photography, and then let the other publications take care of the other branches?

As things are today, we have a splendid group of men and women who are known as pictorial photographers. They have worked their way up to pictorial heights and have won recognition in the leading salons of the world. Although they may be in the minority, they are, nevertheless, a very powerful factor in the growth of photography in all parts of the world.

We next have a group which we might term the advanced amateur. He does good work, he uses photography in connection with his profession as engineer, architect, or teacher, and as a pastime and recreation. This group is a large one, but it seems to be hidden away, because so many who belong to it are modest and have no desire for the limelight. Yet they comprise what might be termed a permanent backbone of popular photography.

Then we come to an increasingly large group of men and women who are utilising photography in industry. This group is growing by leaps and bounds, and within a very few years will have become one of the strongest groups in photography.

And, last, we come to the so-called snapshooter, or beginner, and his number is legion. He is very likely to be as deeply and sincerely interested in photography as the other groups. He is entitled to consideration, to practical help, to encouragement, and to inspiration. When all is said and done, it is from this last group that we must draw the photographers of the future.

Roughly, we have the top, the middle, and the bottom strata, each interrelated and yet with dividing lines as pronounced as though they were not at all related. We have wondered, with a view to constructive effort, whether the photographic publications as a whole would render a greater service by specialising in one or the other of these larger groups, and thus by concentrated effort be of greater help to their readers. It should be remembered that photography today is becoming more complex and involved. It is no longer just the portrait-photographer and the amateur. The branches into which it has been divided are becoming so large, and include so many persons who are interested only in that branch, that we ask whether in the future the photographic publications should, with a view to rendering greater assistance, determine for themselves which group they will try to serve. Perhaps we are wrong in our consideration of the matter; but, at any rate, we believe that often a friendly and constructive discussion is of benefit to all.

We shall welcome any comments, and those which we believe are of general interest we shall publish in future issues.

More Than Ever Before

It was our intention to take the many Christmas and New Year greetings and say something about each and every one of them. We appreciated receiving them, and it seemed to us that the least we could do was to make a little personal comment with regard to each and all. However, when we took out the box which we had to use to hold the many cards, folders, pictures, and other forms of greeting, and discovered that, if we merely listed the names in order, it would take over a page of printed matter; and, furthermore, when we figured out that even a brief reference to each message would extend into three or more pages, we were forced to give up the pleasure of mentioning each of our friends and well-wishers by name. It is a fact that we received more greetings than ever before, and it touched us deeply, making us feel that, after all, there is a common bond of friendship and good will between the Editor and his readers which is to him above price. We hope that this acknowledgment of the many beautiful greetings will reach everyone who remembered us, and may we say again, and sincerely, We thank you all!

Speaking of Inventions and Discoveries

Every time a new invention is exploited, up gets some "me, too" and shows us the same egg in his own incubator—unhatched!

Inventions are usually the result of many trials and experiments; and usually many experimenters are working toward the same objective. As in any speed trial, the first one under the wire is the recognized winner; but the "also rans" often refuse to abide by the decision. They take it to court.

The invention of the telescope was claimed by many. Litigation over Daimler and Selden patents for a gas-engine was strung out for years. Bell and Gray warred over the discovery of the telephone. Two besides Edison claimed to have originated the phonograph. Beach and Wheatstone were rival claimants of the typewriter. Photography was invented three times in 1839, by Daguerre, Niepce, and Talbot.

No one head contains all the good ideas on any subject. Inventions may spring from several sources. It is the first person to secure a patent who is the nominal inventor.

The Boston Mail.

A kansas man found a needle in a haystack. Like all great discoveries, the method, when disclosed, was perfectly simple. He sat on it.

The Boston Mail.

XUM

THE PICTORIAL EDUCATOR

ARTHUR L. MARBLE

Communications intended for the editor of this department should be addressed to him, at Utah State Agricultural College, College Hill, Logan, Utah.

Motion-Pictures for February Anniversaries

"WHAT book or books most influenced you when you were a child or just growing up? What books are important to you now?"

These two questions were directed to Emil Ludwig, the German biographer who wrote "Napoleon", "Suicide Battalions", and many other books of a historical nature. G. P. Putnam's Sons sent the questions to Herr Ludwig at the request of the American Library Association.

In reply Ludwig stated: "(1) as a boy, I read almost nothing, but I looked again and again at historical pictures, which made the deepest impression on me, although their art-quality was generally not high. (2) Later I learned more from the wisdom of Goethe than from any other book.

(3) Even today I do not care much for books: biographers prefer portraits."

We wonder just how literally to take Herr Ludwig in his statement that as a boy he "read almost nothing" and that even now he does not "care much for books". Herr Ludwig does, however, clarify the point that his most vivid and lasting impressions were and are gathered from concrete pictorial images rather than from abstract verbalisms. If historians such as Ludwig a generation ago were able to learn much from still prints whose "art-quality was generally not high", what a great opportunity is afforded the young people of this generation; for not only is there available to them a wealth of still pictures of high artistic quality, but a new form of pictorial art—the motion-picture—now presents literally "speaking likenesses" of great historical figures.

Coming in this month are several anniversaries of writers and statesmen whose names are familiar to many. Indeed, the air will soon be full of talk of Washington and Lincoln, not only in the classroom, but in the church, the home, and even on the streets. Educators who have access to motion-picture projectors will find that there is no better time to show biographical pictures than when the students have their interest aroused by the talk and discussion that always attend the anniversary of a leader.

For the benefit of pictorial educators, I am here giving a selection of motion-pictures that bear directly on February anniversaries. The selection has been made from "1001", the blue-book of non-theatrical films, which is published by the "Educational Screen", 5 South Wabash Avenue, Chicago. And let me say here that no one who is keenly interested in visual education can afford to be without that excellent monthly, "The Educational Screen", the leading magazine covering the field of pictures in education.

February Birthday Anniversaries

February 7, 1812, Charles Dickens.
February 12, 1809, Abraham Lincoln.
February 22, 1732, George Washington.
February 27, 1807, H. W. Longfellow.

THE following descriptions of films have been reprinted through the courtesy of Dr. Nelsen L. Greene, Editor of "1001" Films. The symbols following the titles are the same as those given in the sixth edition of the work, and are adapted as follows:

The title of the film appears in italic type.

The number in parentheses immediately after the title is the number of reels.

Then follow brief review and comment on the film.

Distributors of each film are indicated by number at the extreme right of the last line of description. The firms relating to these are given at the end of the film list.

The symbols (F, N) are used to show in what size and on what kind of stock the film is available from each distributor. The symbols indicate as follows:

F means 35-millimeter, inflammable stock.

N means 35-millimeter, noninflammable stock.

When more than one distributor number follows, the symbol applies to all (thus: F 28, 42, 118). When two or more symbols occur together (thus: FN 97, 114) it means that the distributor or distributors following can supply the film in all the different stocks and sizes indicated by the symbols. (Although all the following films are on 35-millimeter stock only, "1001" lists hundreds of films which are available in the 16-millimeter size.)

CHARLES DICKENS

Charles Dickens (1 reel of series of 10 reels in "English Author Series"). (F 51, FN 144)

A Christmas Carol (1 and 3). Taken from Charles Dickens's story. (F 32, 51, 179)

The Cricket on the Hearth (7). Charles Dickens's story, featuring Josef Swichard as Caleb Plummer. (N 36, 51, 57, 76, 80, 81, 127, 179, F 20)

David Copperfield. Screen version of well-known classic. (F 122)

Fagin (1). Dramatic characterization of master thief from Dickens's "Oliver Twist". (N 81, 179)

Nancy (1). Famous character from "Oliver Twist" portrayed. (N 81, 179)

Old Curiosity Shop (6). Taken in exact locale described by Charles Dickens. (F 81)

Old Scrooge (3). Characterization of the miser in "A Christmas Carol". (N 122)

Oliver Twist (6). Portrayal of Dickens's story. (F 81)

The Only Way (7). Rendering of Dickens's "Tale of Two Cities". (F 157)

Scrooge (1). After the story by Dickens. (N 81, 179, F 51)

Great Expectations (7). Dickens's story. (F 133)

ABRAHAM LINCOLN

American Statesmen Series (1 each). Biographical studies of: (N 35, 36, 187, F 51, 57, 81, 127, 141, 179)

Abraham Lincoln (1). Summary of life and career of Lincoln.

Abraham Lincoln (12). Finest delineation of Lincoln that stage or screen has produced. George Billings in part of Lincoln. (F 60)

Abraham Lincoln (2). Frank McGlynn in episodes from Lincoln's life. (F 57)

Life of Lincoln (2). His boyhood struggles, taking up profession of law, his political career, in the White House, and his death. (N 179, F 80, 144)

The Son of Democracy (10 chapters, 2 each). Written, directed, and produced by Benjamin Chapin, who enacts Lincoln rôle. (N 20, 36, 57, 127, F 76, 80, 104, FN 86)

My Mother (2). Gentle influence and loving companionship of Nancy Hanks Lincoln.

My Father (2). Shows vital importance of an education.

The Call to Arms (2). The Lincoln family in the White House; Lincoln's problem of the war.

My First Jury (2). His defense of a little colored boy accused of stealing.

Tender Memories (2). Seeing a soldier's grave brings tender memories of his beloved mother's grave.

A President's Answer (2). The father heart of Lincoln is revealed as he constantly grants pardons.

Native State (2). Story of Lincoln and Daniel Boone's grandson.

Under the Stars (2). The epic of Kentucky.

The Slave Auction (2). Shows evils of the slave traffic.

Down the River (2). Contest with slave-stealing gang on the Mississippi.

The Land of Opportunity (2). Moving incident in life of Lincoln. Ralph Ince as "Honest Abe" running for Congress. (N 20, 36, 57, 80, 127, 179)

Dixie (3). Vivid portrayal of sacrifices made by American women during Civil War. Meeting of Grant and Lee at Appomattox. One of authentic chronicles of America Photoplays. (N 169, 179, 183)

(*Historical Fiction*)

The Heart of Lincoln (5). Romance of Civil War days founded on an incident typical of Lincoln's self-sacrifice and big-heartedness. (N 122)

The Heart of Maryland (7). Melodrama of Civil War, starring Dolores Costello. (F 44)

The Highest Law (4). Ralph Ince as Lincoln in a dramatic episode of Civil War days. (N 20, 36, 57, 80, 81, 127, 179)

Birth of a Nation (12). Great screen classic—available only in certain territories. (F 157)

The Coward (5). Charles Ray in a dramatic story of the Civil War. (F 36, 57, 127)

George Washington

George Washington (1). Life of George Washington. One of "American Statesmen Series". (See above reference under "Lincoln".)

The Chronicles of America (Series of 33 pictures, 15 released). Authoritative scholarly series, made by the Yale University Press, to depict important episodes and outstanding personalities of American history from Columbus to Appomattox. (N 169, 179, 183)

Gateway to the West (3). Washington at the head of a little band attempting to dislodge the French from Fort Duquesne.

Declaration of Independence (3). Story of the events preceding the Declaration and characterizations of the great men of the day.

Yorktown (3). The surrender of Cornwallis to the united French and American forces.

Alexander Hamilton (3). Highlights of his life.

Eve of the Revolution (3). Events leading up to the Revolutionary War; Boston Tea Party; Boston Massacre; Ride of Paul Revere, and Battles of Lexington and Concord.

Cradle of the United States (2). Homes of the ancestors in England of Washington, Lincoln, William Penn, and other builders of our Republic. (F 3)

New England and the Revolution (1). Part played by New England States in Revolution graphically set forth. (N 127)

Presidents of the United States. Reviewing a few of the events in administrations of our Presidents from Washington to Coolidge. (F 179)

War of the American Revolution (1). Great movements traced. (N 143)

(*Historical Fiction*)

America (10). Griffith production. Memorable incidents well treated; action at Lexington and Concord; dramatic Ride of Paul Revere. (F 157)

Betsy Ross (6). Story of Revolution Days, with Alice Brady. (N 36, 57, 81, 127, 179)

Janice Meredith (12). Much incidental material of historic value—Boston Tea Party, Ride of Paul Revere, Lexington Commons. (F 101)

Henry Wadsworth Longfellow

Henry Wadsworth Longfellow (1). Sketch of his life; scenes from the *Village Blacksmith*. One of "American Author Series" (series of twelve). Brief sketch of each author's life and dramatization of one or more of best-known works. (F 127, FN 144, 179)

Courtship of Miles Standish (5 or 6). Dramatization of Longfellow's poem, geographically and historically correct. (N 51, 86, 127, F 57, 104)

Hunting Ground of Hiawatha (1). Longfellow's poem in pictures. (F 51, 57, 127, 141, FN 144)

The Village Blacksmith (1). From Longfellow's poem. (N 81, F 51)

The Ride of Paul Revere (1). Taken on the actual scenes; captions are lines from Longfellow's poem. (F 89)

Sources of Films

3. Ameranglo Corp.,
701 Seventh Avenue, N. Y. C.
20. Brown, H. S.,
806 S. Wabash Ave., Chicago.
32. Central Film Co.,
729 Seventh Ave., N. Y. C.
35. Church and School Film Exchange,
315 Polk Bldg., Des Moines, Ia.
36. Church Film Co.,
1108 Boylston St., Boston, Mass.
44. Davis, H. O.
106 S. Hudson St., Oklahoma City, Okla.
51. Edited Pictures System, Inc.,
130 W. 46th St., N. Y. C.
57. Film Classic Exchange,
265 Franklin St., Buffalo, N.Y.
60. First National Pictures,
383 Madison Avenue, N. Y. C.
(Ask for nearest exchange.)
63. Fox Film Corporation,
850 Tenth Ave., N. Y. C.
(Ask for nearest exchange.)
76. Herman Ross Enterprises, Inc.,
622 Ninth Ave., N. Y. C.
80. Homestead Films,
732 S. Wabash Ave., Chicago.

XUM

81. Ideal Pictures Corporation,
26 E. 8th St., Chicago, *and* 219 Loeb Arcade Bldg., Minneapolis, Minn.
(Also handle many lantern-slides and film-slides.)
86. Iowa State College, Visual Instruction Service, Ames, Iowa.
89. Kleine, George,
49 W. 45th St., N. Y. C.
104. Michigan Film Library,
2310 Cass Ave., Detroit, Mich.
122. Pathe Exchange, Inc.,
35 West 45th St., N. Y. C.
(Ask for nearest exchange.)
124. Peroff Pictures,
67 West 44th St., N. Y. C.
127. Pinkney Film Service,
1028 Forbes St., Pittsburgh, Pa.
141. Sanford Educational Film Service,
730 S. Wabash Ave., Chicago.
143. Society for Visual Education,
327 S. La Salle St., Chicago.
(Also many still films.)
144. Spiro Film Corporation,
161 Harris Ave., Long Island City, N.Y.
157. United Artists,
729 Seventh Ave., N. Y. C.
(Ask for nearest exchange.)
169. University Extension Division,
Museums, etc.
(Inquire at nearest.)
179. Wholesome Film Service, Inc.,
42 Melrose St., Boston, Mass.
183. Yale University Press Film Service,
386 Fourth Ave., N. Y. C.
187. Y. M. C. A., National Council of, Motion Picture Division, 120 W. 41st St., N. Y. C., and 1111 Center St., Chicago.

Appreciation of the Photoplay

ACCORDING to published reports, during the fall term at Stanford University a course in appreciation of the photoplay was given by Prof. Paul R. Farnsworth of the department of psychology and art. The Academy College Affairs Committee of the same institution is now planning to produce a series of talking-pictures with leading educational lecturers and classroom teachers in the nation.

Stanford University is the second large institution of collegiate grade to institute courses in photoplay appreciation under the ægis of the Academy of Motion-Picture Arts and Sciences. The last-named organisation is now expanding its program to include (1) the making of a series of picturised lectures by leaders in the motion-picture industry; (2) preparation of a textbook on photoplay appreciation for general college use; and (3) "introduction among other universities of a course in photoplay-appreciation similar to those now in the curricula of the University of Southern California and Stanford University".

THE irate customer shook his portrait in the photographer's face: "Do I look like this picture? The thing's an outrage! Why, you've given me an awful squint and the look of a prize-fighting bully. Now, answer me, and no nonsense about it! Do you call that a good likeness?" The photographer scanned the print, then looked at the customer. "The answer", he said, "is in the negative". And the customer went away with a look of deep thought on his face.

Christian Register.

Seeing Canada by Film

THAT the Canadian Government clearly recognises the publicity-value of pictures is evident from a perusal of a catalog of films produced by the Dominion. The following lines from the introduction to the catalog are self-explanatory:

"Through the Department of Trade and Commerce the Canadian Government has operated its own Motion-Picture Bureau for many years with ever-increasing success. The Canadian Government Motion-Picture Bureau has specialised in the production of a one-reel product, now internationally known as the "Seeing Canada" series. These one-reel films are informative in their character and are intended to place before the world Canada's manifold attractions and opportunities.

"The various governments of the world are more and more utilising motion-pictures and realising their potential powers. The Government of the Dominion of Canada is a pioneer in this new form of governmental activity. Its methods of production and distribution of this type of film have been studied by foreign governments and other international organisations engaged in work along allied lines.

"The "Seeing Canada" films, as they have aptly been named, show to the world the Canada of today—with a vision of the possibilities of tomorrow. There are films descriptive of most of the important cities and districts; films of its mountains, lakes, and rivers. There are outdoor sporting-pictures that help to attract thousands of foreign tourists annually to Canada's domains. There are films dealing interestingly with Canada's basic industries and resources; and there are films designed to develop great national industries and to encourage agricultural pursuits.

"In its motion-picture production activities, the Bureau closely co-operates with other Federal Government departments which from time to time desire motion-pictures produced illustrative of certain phases of their own work.

"Besides engaging in motion-picture production, the Bureau has a division for the production of still-pictures, lantern-slides, bromide enlargements, and art-colored transparencies."

A copy of the film-catalog may be secured by writing Mr. F. C. Badgley, Director, Canadian Government Motion-Picture Bureau, Ottawa, Canada.

English

A FRENCHMAN was relating his experiences in studying the English language. "When I discovered that if I was quick I was fast", he said, "and that if I was tied I was fast, and if I sported too freely, I was fast, and that not to eat was to fast, I was discouraged.

"But when I came across the sentence, 'The first one won one one-dollar prize', I gave up trying to learn English."

We wonder what complications arose when he tried to learn the pronunciation of such words as *rough, though, through, tough,* and the like?

Contact.

Plausible Answer

A PATRON who had a habit of complaining about his food on the least pretext yelled, "Say, waiter, what are these black specks in my cereal?"

The waiter made a close inspection and then replied, "Dunno, sir, unless it's some of them vitamines everyone is talking about now."

Contact.

THE MONTH IN APPLIED PHOTOGRAPHY

C. B. NEBLETTE, A.R.P.S.
Division of Photography, A.M., College of Texas

Photography in Spectrum Analysis

In the development of spectrum analysis as a science of far-reaching importance, photography has played a part second only to the spectroscope. For if the spectroscope makes spectrum analysis possible, photographic recording of spectra makes it practical. That spectrum analysis would have made progress without the assistance of photography is certain; but it may be questioned whether, without the assistance of photography, it would now be established on the firm basis that it occupies today.

Long before spectrum analysis had been established as an exact science by the work of Kirchoff (1859), and the same year that the first practical process of photography was discovered (1839), Herschel made photographs of spectra. It was soon discovered that the daguerreotype plate was sensitive not only to the blue and violet but to the invisible ultra-violet as well, and that it was practically insensitive to green, yellow, orange, or red. Shortly afterward it was found that by exposing the daguerreotype plate for a few seconds to diffused light, the orange and red might be recorded. The results, however, were reversed; *i.e.*, the bright lines in the red of emission spectra were recorded as dark lines on a bright background. In order to photograph lines in the orange and red, regions to which the daguerreotype plate was insensitive, Edmond Becquerel hit upon the use of substances which fluoresce with a bluish light when exposed to orange and red. By thus converting the light into radiations to which the plate was sensitive, he photographed lines in the red of the solar spectrum as far as 1.50μ.

The wet-collodion process introduced by Scott-Archer in 1850, like the daguerreotype process which it superseded, was for all practical purposes sensitive only to the violet and blue. In 1880 Abney was successful in preparing a special molecular form of silver bromide in collodion which was sensitive to the red and infra-red, and with this he mapped 590 lines in the infra-red portion of the solar spectrum between Oμ715 and Oμ9876 with a degree of precision equal, if not superior, to that of Angstrom in the visible spectrum.

In 1873, just as collodion was about to give way to the gelatin dry plate, Vogel of Berlin discovered the action of certain dyes in rendering silver bromide sensitive to the green and yellow. Soon there were a number of workers in this field and considerable progress was made. A good green and yellow sensitiser was discovered in erythrosin by Eder of Vienna in 1884, and a whole series of green and yellow sensitisers were produced by E. Koenig of the Hoehst dye works, beginning in 1903 and cumulating in 1906, in the discovery of an efficient red sensitiser, pinacyanol, by Homolka. With pinacyanol the sensitivity in the red is extended to 7500.

A sensitiser for the extreme infra-red was discovered shortly afterward in dicyanine. With dicyanine, Meggers at the United States Bureau of Standards in Washington and McLennan at Toronto have photographed lines in the infra-red as far as 1000 Å. No other dye has yet been discovered which sensitises further into the infra-red than dicyanine; but kryptocyanine and neocyanine—the latter sensitising to approximately 1000 Å—are more reliable in use and sensitise more strongly.

For work in the extreme ultra-violet beyond 2200,

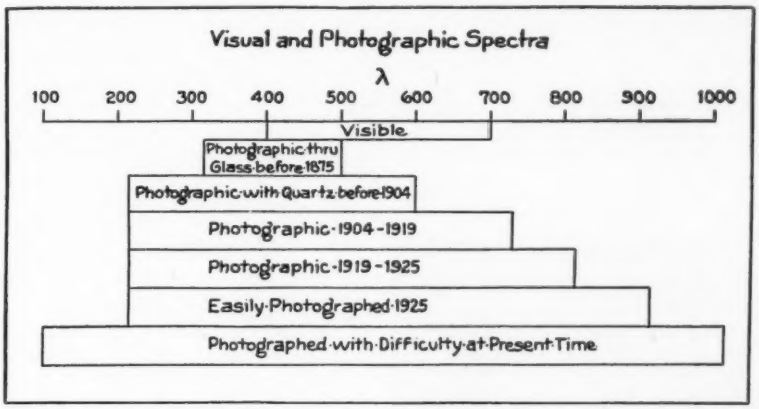


FIGURE 1 C. B. NEBLETTE

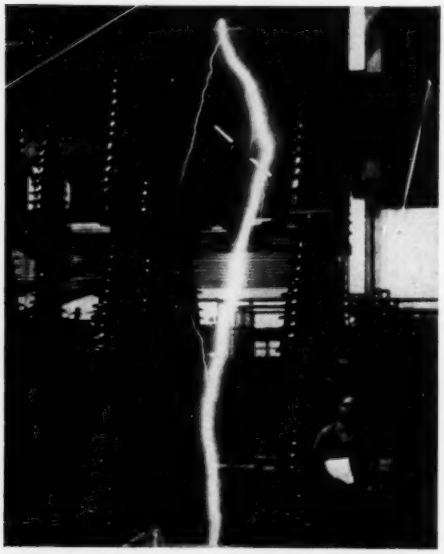
plates free of gelatin must be employed, as gelatin absorbs ultra-violet light beyond 2200 Å. A method of preparing plates with the minimum of gelatin was worked out by Schumann in 1901 and has been widely employed for work in the extreme ultra-violet.

Of late, some use has been made of mineral oils which fluoresce in the ultra-violet, for photographing the extreme ultra-violet. Lyman at Harvard, with plates prepared with a clear paraffin oil, has photographed lines up to 58 millimeters in the ultra-violet.

The progressive extension of the limits of photographic work in spectroscopy is shown graphically in Figure 1. The scale of wave-lengths at the bottom, from 100 to 1000, reaching from the limit of the Schumann plate in the extreme ultra-violet to the end of the sensitising action of neocyanine and dicyanine in the infra-red, represents the present limits of photographic processes. Beginning at the top, the clear areas represent the range of sensitivity of the various processes and sensitizers, from the time of the daguerreotype to the present day. The visible spectrum is the portion extending from 400 to 700 Å. Notice the comparatively small extent of the visible portion of the spectrum as compared with that which can be secured by means of photography.

Some Real Artificial Lightning

OUR readers will recall that on page 217 of the October, 1929, issue we called attention to the lightning-picture by Gordon H. Coster which appeared on page 77 of the August, 1929, issue. It will be remembered that there was a question as to whether or not this picture was really made by artificial lightning. In other words, was lightning to be considered artificial or natural?



Courtesy General Electric Co.

FIGURE 1 A 5,000,000-VOLT DISCHARGE

Courtesy General Electric Co.

FIGURE 2 MAN-MADE LIGHTNING

In connection with this interesting discussion we received some helpful information from Mr. Arthur Palme, electrical engineer of Pittsfield, Mass. Through his association with the General Electric Company he very kindly forwarded three photographs which were certainly made by man-made artificial illumination. Whichever position the reader may take with regard to whether lightning is to be classified as artificial or not, we believe there is no question but that the pictures herewith reproduced will be of interest. Incidentally, the illustrations reveal something of the work being done by the photographic department of the General Electric Company.

Figure 1 is an artificial lightning discharge of five million volts. After the flash was over the lens was capped, the man was placed near one of the insulators and a subsequent time exposure was made with the man to get an approximate scale which would show the height of this electrical discharge. Obviously the man could not have stood there when the discharge took place. The exposure of the flash was a matter of a few millionths of a second in a dark room. This flash jumped about fifteen feet between the sharp points.

Figure 2 is another discharge of man-made lightning of about two million volts. The discharge was directed toward a miniature village, assembled on the floor of the laboratory, in an effort to study lightning protection. This exposure was likewise a few millionths of a second in a dark room.

Figure 3 is perhaps one of the most beautiful electric arc pictures ever made. The arc photographed was about thirteen and one-half feet in length and was produced in the laboratory by a discharge of one and one-half million volts 60 cycle current. The exposure was about two seconds in the darkened room. The beautiful lace-like effect, comparable in appearance to a lace or a fine fisher net, is produced by the alternations of the current and the wandering of the arc upwards, due to heated air.

We are indebted to Mr. Palme for these very interesting photographs which he obtained for us through the co-operation of the photographic department of the General Electric Company.

Western Michigan Photographed from the Air

AFTER four months' work, the greater part of which time was spent in vigilance for absolutely clear days, aërial photographs covering 2,200 square miles of the West Coast of the Southern Peninsula of Michigan were just completed by an Army Air Corps expedition.

Courtesy General Electric Co.

FIGURE 3 PHOTOGRAPH OF A BEAUTIFUL ELECTRIC ARC

The territory photographed included the counties of Muskegon, Oceana, Mason, and part of Lake County.

The above project was accomplished at the request of the U. S. Geological Survey, and the total of 3,300 photographs made will be used separately by this Governmental Bureau in making maps of the area mentioned.

The photographic expedition consisted of Lieutenant Willis R. Taylor, commanding the 21st Photo-Section at Scott Field, Ill., pilot, Private Clarence Oster, photographer, and Corporal Joseph C. McCullough, mechanic. Private Oster was subsequently replaced by Master Sergeant Nico G. Loupos.

Lieutenant Taylor took off to start work on the photographic project on July 1, piloting a Loening Amphibian in which an Air Corps aërial camera, type K-3, was installed. His first base was at Muskegon, and he established new bases as the work progressed. The work of photographing the 2,200 square miles was accomplished in twenty working days, totaling seventy-eight flying hours.

During the four months, there were only twenty-two clear days. Illness of the leader made possible the use of only twenty of these clear days, however. On several occasions, clouds rolled in after he had attained the required altitude, necessitating the abandonment of work for the day.

The Amphibian OA1-C plane was later replaced by a Douglas O2-H Observation plane. The average altitude flown during the project was 11,500 feet.

Calculating the cost of the operation of the plane during the photographic work, and in preparation therefor, at the rate of $90.35 per hour, and including the personal expenses of the members of the expedition and the cost of the photographic material, the cost of the mission was $13,864.84, or about $6.30 per square mile. This included six prints each of the negatives exposed.

Air Corps officers who have flown over parts of the area photographed and who are familiar with this type of country estimated that the cost of $6.30 per square mile for aërial photography was considerably less than that required alone to feed one man during the ground-mapping of a square mile of some of the territory.

MR. B (to portraitist): "Then you'll make a picture of my wife? Be sure to make it a good likeness."

Portraitist: "Certainly, if you wish; but you must take the responsibility."

"DAUBER may be a great artist," said the sweet young thing, "but he certainly has a peculiar way of painting his pictures."

"Well, how is that?" asked her friend.

"Well, when I visited his studio recently and asked him about his work, he told me he painted his greatest pictures on an empty stomach!"

Thru the Darkroom Door.

LONDON LETTER

CARINE AND WILL CADBY

THE weeks close before Christmas provide us with some tough brain-wrestling. Over here, there is an old, traditional tyranny that insists on present-giving to far too many people. It would be child's play, and our brains would function with ease, if we only felt the obligation to those living in close intimacy with us; but custom insists that because distant relations and old friends whom we have not met for years send us gifts, we must do the same.

If we only knew what they wanted, all would be well, but it is irritating to think that in all probability our good money is going to provide someone else with a white elephant. "Give what you would give yourself", we read the other day; but however good this advice may sound, we have proved its futility by envying a book we gave away last year, and discovering by chance that its leaves are still uncut.

This year, however, the difficult and torturing problem for us is solved. There is such a simple way out that we can only wonder we never discovered it before. Present everyone who is not already a photographer with a camera! Quite inexpensive ones will do to begin with; they will probably treat themselves to better ones later on. We did this last year, and, when once the seed is sown, it is only for us to reap the harvest. No more worrying about presents; in fact, the only trouble comes from an *embarras de choix*. For are there not an almost infinite variety of accessories, such as printing-outfits, rolls of film, darkroom-lamps, exposure-meters, trays, developing-tanks, text-books, etc? We are settled now for many years to come, and have the satisfaction of knowing that our gifts will be useful, and in consequence valued.

A new photographic publication is Mr. E. Drummond Young's "The Art of the Photographer". It is a big and serious tome, published by Seeler Service and Company at twenty-one shillings—rather too dear for one of our Christmas gifts! The title reminds us of Mr. Antony Guest's "Art and the Camera", but Mr. Young is a more technical and practical photographer than Mr. Guest, who was an art-critic by profession.

Mr. Young even goes back to the Adam and Eve of the craft, and begins his book with the old, old story of Fox Talbot and daguerreotypes. He pleased us with the advice he gave to embryo photographers to study light and shade and to use the great advantages given us by the camera in this direction. Being himself a painter as well as a photographer, Mr. Young understands to the full the limitations of photography, which he recommends workers to acknowledge; and, instead of straining the camera to do work for which it is unsuited, to stick rather to subjects in which it excels.

It is some time now since an important book on photography has appeared, and, although it is interesting to have new ideas from those who are accustomed to all the present-day mechanical improvements in the craft, still old classics such as Mr. Guest's book and Mr. Child Bayley's "The Complete Photographer" will want a lot of beating.

We have always maintained that photography is an excellent profession for women. They, with their adaptability, quickness of hand, and lack of formality seem so well fitted for it, just at the present, more particularly, when naturally progressive people, and those quick to sense new atmospheres, are needed. Now Miss Eadon of Sheffield comes along as an example of our theory. She has a studio and has made rather a speciality of colored portraits tinted by hand. But color ciné work looms on the horizon and she at once seized the opportunity to identify herself with Kodacolor and push these colored films whenever possible.

Last summer the local Sheffield paper gave her a good opportunity by organising a "Beautiful Gardens" competition. Miss Eadon made some striking films of the winning gardens and exhibited them later at her studio.

She has had a little ciné theater constructed in her basement, where she gives demonstrations of the new process, and she also has held a series of "At Homes" in the autumn to stimulate the interest of her clients in Kodacolor. Altogether, Miss Eadon is an excellent propagandist for the Kodak color-process; for, after she has shown people interesting records of their gardens abloom, their children at play, or some social function on the screen, she is ready at once to sell them a complete outfit before their enthusiasm cools.

If only a woman has enough initiative to start a new enterprise like this, the carrying out of it will come easier to her than to a man. To begin with, she enjoys an adventure of this kind, and we know how infectious is enjoyment; then, provided she is tactful and not pushing, criticism is disarmed, for we are all bound to feel sympathy with a woman who is not only seeking a living but a fresh field of enterprise, especially one that is likely to bring her into relationship with our own interests.

Last month at the Camera Club, there was an exhibition of "Aërial Photographs" by Captain Alfred G. Buckham. These pictures are not landscapes or seascapes, but emphatically cloudscapes, a new departure in subjects for the camera. Of course, we have had cloudscapes before; but they have always been of the face of the cloud which is turned toward the earth, whereas these are pictures of clouds as seen from above; and one might, without exaggeration, describe them as amazing.

It is a new viewpoint, the aërial surroundings of an airman, and consists mostly of marvelous effects of cloud on which he looks down. In some of the pictures, the earth comes into the scene, giving effective contrast to the vaporous subjects, and the scale of the cloud-architecture is seen in other of the studies by airplanes appearing like small black flies. One picture, with the poetical title "The Playground of the Winds" gives the land-dweller an insight to the tricks the wind plays with cloud-formations and shapes.

Captain Buckham shows that these cloud-effects, besides being valuable data, can be pictorially satisfying, for many of the prints are very effective as compositions. The wonder is how this can be managed from the rapidly moving point of view of an airplane. Soon, no doubt, we shall have the skyscape enthusiast hurriedly taking wing to catch fleeting atmospheric effects to be found only on the upper side of sky-enveloping storm-clouds, just as at present we rush to secure some transient lighting on a landscape.

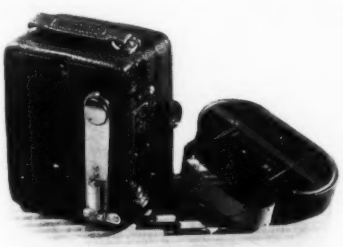
WHAT'S NEW?

A department reserved exclusively for the announcement and description of new photographic goods and services.

The New Zeiss-Ikon Kinamo S.10

THE amateur movie enthusiasts of the United States will enjoy the special features of the little Zeiss-Ikon Kinamo S.10, a thoroughly practical 16 mm. outfit, which is the smallest existing movie camera made. Kinamo S.10 is distributed by Carl Zeiss, Inc., 485 Fifth Avenue, New York City.

The Kinamo S.10 is equipped with a Carl Zeiss F/2.7 Tessar lens. The camera is small enough to be held easily in one hand and, with the eye applied to the internal view-finder, may be satisfactorily braced in this way. Threading is quickly and effectively accomplished with the aid of a special container which simplifies placing the film in the correct position and eliminates threading the take-up reel. Feed and take-up sprocket are arranged in remarkably compact form.



THE NEW ZEISS-IKON KINAMO S.10

A special feature is the movable feed-sprocket by means of which the size of the loops may be changed after threading. The film-magazines are furnished loaded with 33 feet (10 metres) of 16-mm. Eastman Kodak safety film, orthochromatic or panchromatic, a very convenient length which enables the amateur to take a few complete "shots" using all of the film and thereby getting quick developing service. After the film is exposed it is automatically wound in the light-tight container ready for shipment to the nearest Eastman Kodak processing-station. A novel and useful indicator shows at a glance just how far the spring motor has run down, and when it is necessary to rewind. By using this device, the operator may appear in the picture for a given length of time, after which the camera will stop automatically. One full winding of the spring-motor exposes 13 feet of film. The design of the Kinamo S.10 is such that it is exceptionally easy to keep the gate free of emulsion deposits. All working parts are enclosed in a dust-proof housing and no need exists for cleaning the mechanism.

Mr. Herbert C. McKay, F.R.P.S., has some interesting comments about this new camera in his department, "The Amateur Kinematographer", this issue.

Filmador—New Bell & Howell Accessory

IN the Filmador, a name which is obviously a combination of the words film and humidor, the Bell & Howell Company, makers of the well-known Filmo motion-picture cameras and projectors, present a new accessory for preserving motion-picture films which every amateur projector owner will welcome as an absolute necessity.

He will be quick to note the fact that his precious personal films—films treasuring notable moments in the life of himself or his family, and which often cannot be replaced, if destroyed—are assured of ideal preservation. Of course, other films intrusted to the Filmador are kept in equally excellent condition. The Filmador provides just the right film-storage conditions in any locality, regardless of how dry or moist, hot or cold, the air may be. It eliminates the necessity of semi-weekly attention to stored films, even in the warm, dry atmosphere of a steam-heated home or apartment in winter. The films stored in the Filmador are always ready for projection, as they contain just the right amount of moisture to make them pliable and strong.

Two aluminum containers, one within the other, comprise the Filmador. Between the two, on all sides, is a dead air space of approximately one-half inch. Corks, excellent non-conductors of heat, are cemented into place inside the outer container in such a way that they prevent any direct contact between the two units. A generous humidor pad is mounted beneath an aluminum cover in the bottom of the inner container. This pad is slightly moistened with water. The film is placed in the inner container and its cover is then put on. As the cover is turned down, its bayonet lock effects a snug contact between the container and a rubber-gasket in the cover, producing an air-tight joint. The covered inner unit is then placed in the outer container, and the bayonet-locking cover of that unit is also turned down snugly. The film is then ready to be filed away until needed and will not require further attention until the Filmador is opened.

Moisture cannot possibly escape, nor can dry air enter. The dead air space prevents rapid changes in temperature which would disturb the moisture content of the film. Not only will the Filmador preserve film in good condition—it will restore the pliability of film which has become dry, except, of course, in cases where the film has deteriorated so seriously from excessive dryness, heat, and age that it is beyond reclamation.

The Filmador is built of pure, heavy aluminum, is reinforced with ridges to increase its durability and rigidity, and is beautifully designed and polished. Its capacity is 1200 feet of 16-millimeter film—three 400-foot reels. A mat-surfaced area on the cover permits writing thereon, for identification-purposes, the titles of the films contained. A popular price has been placed on the item and several different combinations of the inner and outer Filmador containers and reels and cans are also available.

The Filmador will repay its purchase price many times over in furnishing perfect protection for films, many of which could never be retaken—protection not only against atmospheric conditions but also against fire.

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HERE, THERE AND EVERYWHERE

To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.

Photo-Era Trophy Cup Scores

As was to be expected, the December, 1929, competitions, devoted to "Miscellaneous" as the subject, drew an unusually large number of entries, and in consequence the task of the judges was a difficult one. It is a matter of keen satisfaction to us that in spite of many leading salons and exhibitions, our competitions still interest so many of our readers. As compared to the honors and cash awards of other competitions, we have comparatively little to offer. However, we believe that one reason, at least, for the continued success of PHOTO-ERA competitions is that they are conducted in a spirit of good-fellowship and the mingling together of congenial friends. If this is true—and we believe it is—this spirit is above price and is one in which we can take sincere pride and satisfaction.

In the Advanced Competition, Charles Clayton, Jr., of the Photographic Club of Baltimore, won First Prize. The Second Prize was awarded to Howard Dine, not a club member; and the Third Prize to Dr. Max Thorek of the Fort Dearborn Camera Club. In the Beginners' Competition the First Prize was awarded to Walter Lipkau, and the Second Prize to J. Daniels, neither of whom is a club member. With regard to Honorable Mentions, the Photographic Club of Baltimore received five, the Fort Dearborn Camera Club seven, Cleveland Photographic Society nine, Brooklyn Institute three, Chicago Camera Club one, and Syracuse Camera Club one. It will be noted that the Photographic Club of Baltimore crept up nearer to the lead, which is now held by the Fort Dearborn Camera Club. Furthermore, the Cleveland Photographic Society is making steady progress and seems to be secure in third place. However, the other camera clubs should not feel discouraged but should redouble their efforts.

According to our records, the standing of the clubs, as of January 7, 1930, is as follows:

Fort Dearborn Camera Club	23½
Photographic Club of Baltimore	17½
Cleveland Photographic Society	10
Brooklyn Institute	3½
Syracuse Camera Club	2
Episcopal Academy Camera Club	1½
Toronto Camera Club	1½
Chicago Camera Club	1
Photographic Society of Philadelphia	½
Schenectady Camera Club	½

E. H. Washburn Wins Santason Prize

OUR readers who enjoy the kindly criticisms and comments in the department "Our Illustrations", edited by Mr. E. H. Washburn, will be glad to learn that our critic won a second prize—$75 cash—for a photograph which he made in the Boston, Mass., Thanksgiving Day Santason Parade. It will be recalled that Tony Sarg, creator of Marionette Shows, conceived the idea of making large, grotesque figures out of balloons to amuse the children at Thanksgiving and Christmas. Special parades were arranged and it was during one of these that Mr. Washburn made the picture.

Another Excellent Camera Record

DEAR MR. BEARDSLEY:

With reference to page 341 of the December, 1929, issue of your most valued magazine, I beg to be permitted to make the following statements:

Twenty years of use of one camera is a wonderful record for both the photographer and the manufacturer. The record will probably be hard to beat.

I am able to supply data on fifteen year's use of a camera. Since 1914, I have owned a 3¼- by 4¼-inch Eastman Speed Graphic, with a Zeiss Tessar F/4.5 lens of 5-inch focus. In order to make my point stronger, it is essential to state that, in all these years, I have owned no other camera. The versatility of this type of camera can best be illustrated by what I have successfully done with it:

(1) General amateur work, called "snap-shooting".
(2) Pictorial work, with careful composing on the ground-glass.
(3) Indoor and outdoor portraiture.
(4) High-speed work at definite distance.
(5) Copying up to full size.
(6) Micro-photography.
(7) Fine airplane work.
(8) Photography in natural colors.
(9) Attachment to vertical enlarger.

In fairness to the above, I shall not omit to say that this type of camera could not be used to good advantage for high-speed work at indefinite close range; such as, for example, football close-ups.

Movie fans, who frequently have occasion to see, on the screen, scenes from "News-Reels", will perhaps have noticed that when some notable parade, unveiling, corner-stone laying, etc., is being shown, and when many news-photographers are seen in the picture at work, the majority of them use a camera of the Speed Graphic type.

My old trusty camera begins to show signs of old age. It has made thousands of negatives, from the jungles of Cuba to ten feet of snow at minus twenty degrees in the high mountains of the North. Soon I shall have to get a new one, and it will be a duplicate of the one I now have, with the same lens, of perhaps an inch longer focus.

It seems to me that so far as versatility and faithfulness of service are concerned (nothing ever got out of order and the bellows are today as good as new), no better recommendation could be given for an all-round service type of camera.

ARTHUR PALME, E.E.

Appalachian Mountain Club's Annual Exhibition

THE exhibition of photographs by the members of Appalachian Mountain Club, opened on December 12, 1929, in Boston, brought out two very clear and interrelated conclusions: first, that mountain-climbers are lovers of pure landscape beauty and have highly sensitive appreciation of it, due, in part at least, to the pursuit of their hobby, whereon they go in search of it; for the ascent of a mountain might be merely hard

labor, were it not for the glorious prospects at the summit! So, in order to record these scenes for future enjoyment, Appalachians have become skilled photographers. Second, on the other hand, we suspect that the pursuit of inspiring camera-subjects has led many enthusiastic camerists to become Appalachians.

The truth of these conclusions was evident from the first general survey of the pictures, and a more detailed examination convinced one of it. There were some ninety-five prints hung, all of a very high order. Compared with former exhibitions, it outshone them all in general excellence, and many of the subjects were fine examples of camera-art. Sound technique was the rule, and the photographic quality was *par excellence*.

The subjects were, naturally, very largely mountains and mountain-tops, such as appeal to the heart of the mountaineer, and they were so beautifully rendered as to command the admiration of the observer. In nearly all cases, careful attention to the essentials of good pictures was conspicuous, from sound composition and arrangement of the subject to skillfully executed enlargements, very fittingly mounted or framed.

But mountains, snow-clad, cloud-capped, or assaulted by lightning-flashes, were not all. There were beautiful bits of choice, intimate landscape subjects, that would be a challenge to artists in any medium, made for pure love of the beautiful—gems indeed, to satisfy the most critical.

The prints were tastefully grouped under the direction of Franklin I. Jordan, counselor of art in the club, and the awards were made by a jury: Leonard Craske, president of the Union Camera Club and well-known sculptor, Robert M. Shaw, and Richard Elwes Pope—all photographers.

First prize was awarded to H. B. Washburn, Jr., for his beautifully composed and well-handled picture, "Sunrise on the Aiguille de Chamonix, from the Aiguille du Midi". It was one of six fine Alpine subjects. Another outstanding print in this collection was "Thunderstorm on Aiguille du Goûter", with heavy clouds and flashes of lightning. Made at 9 o'clock P.M., it was extremely dramatic.

Frank Roy Fraprie captured second award with a beautiful blue bromoil, "Lip of the Dam", a fine example of modern space arrangement. The third award went to Miriam E. O'Brien, for a very convincing and beautifully done print of clouds on snow-clad, rocky peaks; untitled.

Five honorable-mentions were given, and the jury might have had difficulty to decide where to stop, so worthy were all the prints hung. The twenty-six exhibitors, ten of whom were women, brought distinction to their club and are deserving of much praise for their fine showing.

ERNEST H. WASHBURN.

"World's Work" Offers Monthly Prize

WE are pleased to invite you to enter a photographic competition now being conducted by *World's Work Magazine*. In an effort to find the best pictorial photographs bearing on interesting developments in the arts, engineering, manufacturing, transportation, and so on, this magazine will pay the sum of fifty dollars each month for one picture selected by the editors. Judgment will be based on the timeliness and interest of the subject, its pictorial and artistic excellence, and its suitability for halftone-reproduction.

It is understood that by payment of the prize money, *World's Work* acquires the exclusive right to the chosen picture up to the time of publication, which will be not more than six months after the date of acceptance. Pictures which have been reproduced elsewhere are not barred; but, in such cases, the editors will take into consideration the decrease in news-value. Each month the winning photograph will be listed in the table of contents, with the name of the photographer. If other pictures submitted in the competition are used, they will be paid for at the usual rates. All photographs will be printed with a credit line.

Pictures having the greater measurement vertically rather than horizontally are best suited to *World's Work*. The editors request that about one hundred words of descriptive text accompany the picture. This will assist in the framing of a suitable legend. Stamps for return of prints should be enclosed. Address The Picture of the Month, *World's Work*, 244 Madison Avenue, New York City.

Herbert C. McKay, F.R.P.S., Lectures on Sound Films

A GREAT deal of interest was aroused recently by the officials of the New York Institute of Photography, who invited a large group to attend a lecture upon the subject of talking motion-pictures, given in their studios, at 10 W. 33rd St., New York City.

Although the weather was at its worst, the attendance was very large, and the spacious demonstration-studio was crowded to capacity. The tremendous interest in this subject can only be fully realised when one sees such a huge gathering, representing perhaps 90% of all those invited, in such weather when most persons would remain at home.

The lecture was delivered by Herbert C. McKay, F.R.P.S., the Dean of the Institute. Mr. McKay has not only followed the development of the new art very closely, but has been actively engaged in experimental synchronous recording for the past year and a half, during which time he was associated with the development of a highly simplified and rugged sound-on-film recording mechanism.

The talk briefly sketched the history of synchronous recording and reproduction, covered an elementary explanation of the underlying theory, a description of the appliances and methods now in use, an outline of the difficulties yet to come, and ventured a few simple prophesies regarding the development of this art in the near future.

Clippings of synchronised film were distributed to all those present as souvenirs. Appreciation of the courtesy of the officials of the New York Institute of Photography was so freely expressed that, it is probable that a complete series of lectures will be given periodically during the next year.

The New Year Institute is well known for its leading position as an educational institution giving training in photography, motion-picture photography, and allied lines of endeavor.

If you are interested in attending any or all of the proposed series of lectures, an inquiry addressed to the New York Institute of Photography, 10 W. 33rd Street, New York City, will ensure your receiving detailed information.

Blackington Lecture at Boston City Club

THE evening of December 19, Alton Hall Blackington, who, for several years, was on the photographic staff of the *Boston Herald*, but is now in the lecture field, and news-service line of work, lectured at the regular Thursday evening event of the City Club, and although "it was a dark and stormy night", the reputation of the lecturer and his personal popularity brought out a

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RIO LOS PINOS — EDWIN A. REEVE

SECOND PRIZE—(DECEMBER, 1929) BEGINNERS' COMPETITION

large attendance to hear "Blackie", as he is known to his friends. His topic was "The Romance of News-Gathering", and, throughout his talk—for it was more than a mere "lecture"—there was a thrill in every moment. His wonderfully interesting slides, selected from ten years of photographic news-gathering, were the admiration of all and the envy of many photographers present, for they covered all sides of life, from the sunniest and funniest to the most pathetic and dramatic. His tales of the stunts necessary to bring home the bacon ("or resign your job", he said), kept his large audience on the qui vive, while his humorous thrusts literally brought down the house, and accounts of trips to photograph Colonel Lindbergh, President Coolidge, and the Vermont Flood were spell-binding.

The "Camera Associates" of the Club had a reserved section, and "Blackie's" good friend, Franklin I. Jordan, of that group, introduced him, drawing from his own friendship with appropriate anecdotes. It was a red-letter evening for those who were present, especially the camera-fans.

ERNEST H. WASHBURN.

Nesbit's Electric High-Speed Flashlamp

A NEW descriptive folder and price-list of the Nesbit Flashlamp is now available and it will not only interest all naturalists and photographer-sportsmen, but will prove worth investigation on the part of news-photographers as well. Mr. Nesbit outlines briefly many facts with regard to high-speed flashlight photography which are the result of over twenty years' study of the subject. By addressing William Nesbit, Short Hills, N.J., this new folder will be sent promptly to those who are interested.

An Orphan-Picture Wanders In

DOUBTLESS many of our readers have been considerably puzzled with regard to the Second Prize picture in the Beginners' Competition on page 39 of the January, 1930, issue. Frankly, we and our printers are just as much puzzled as our readers must be, or could be. How the picture reproduced got into our pages, where it came from, and who made it, we are, in the language of Shakespeare, "yet to learn". On this page we reproduce the picture which should have appeared, and we feel that our readers will agree that Mr. Washburn's description of the true "Rio Los Pinos", by Edwin A. Reeve, fits better than it did the picture reproduced in our January issue. Apparently, somewhere a substitution occurred, which was not discovered until the entire edition was printed. It is an unusual mistake and is one which in our fifteen years' connection with the magazine never occurred before. In the circumstances, we feel sure that our readers will sympathise with our feelings, and that they will admire with us the picture which was to have graced the January issue. We expressed our regret and sent our apologies to Mr. Edwin A. Reeve; and, if we happen to discover how this orphan half-tone managed to get into our pages, we shall be glad to tell our readers. Needless to say, we shall redouble our efforts to avoid a repetition in the future.

The Lomara Pocket Microscope

BECAUSE the C. P. Goerz American Optical Company has established such a well-known reputation as lens-manufacturers, the fact is sometimes overlooked that they also make and import other useful accessories, like the Lomara Pocket Microscope.

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This pocket microscope resembles a fountain-pen, and can be made almost as useful in everyday life as the implement that expresses our thoughts on paper. The Lomara pocket microscope has already demonstrated its utility value to such persons as textile workers, chemists, precious-metal workers, machinists, photo-engravers, lithographers, botanists, students, and others. Amateur and professional photographers, too, will find many uses for the Lomara in the photographic field. It is decidedly useful in examining film-emulsions, exposed plates, papers, prints, and so on.

It is a compact piece of mechanism that is not difficult to operate, and it provides a high power of magnification. It is well worth its moderate price, not because of its excellent construction alone, but because of its utility value.

Meetings to Work up P. A. of A. Prize Contest Plans

BEGINNING in January, the P. A. of A. holds meetings in many cities, from coast to coast, to plan the Golden Anniversary $20,000 Prize Contest, which will run from February 20 to May 10, inclusive.

The national advertising committee has put the direct-mail division in charge of these meetings. Field representatives met in various cities with photographers and explained to them the full details of the contest and the material to be used in advertising. Then members were given the opportunity to organise to carry on the contest in a given locality and to get the largest possible amount of business out of the effort.

It is believed that the holding of meetings was the most successful way of organising and working up enthusiasm for the contest.

The Second Chicago International Salon

THE Second Chicago International Photographic Salon, being the 27th Annual Exhibition held under the auspices of the Chicago Camera Club, will be held in The Art Institute, Chicago, Illinois, May 1 to June 1, 1930. The last day for receiving prints will be March 24, 1930.

News Information Requested

WE have been requested to announce to our readers that Mr. Louis M. Bailey, Editor of the "Educational Films" department of *Movie Makers*, is requesting news information on the making and use of educational movies, particularly from those individuals and organisations whose motion-picture work has not been reported in any publication. Mr. Bailey would like to receive this news at the headquarters of the Amateur Cinema League, 105 West 40th Street, New York City.

Prints May Be Resubmitted

WE feel indebted to a member of the Fort Dearborn Camera Club of Chicago who raised the question as to whether or not a print submitted to one competition and failing to receive an award thereby becomes ineligible for future competitions. It very often happens that two excellent prints, each of prize-winning quality, are entered by the same person. Obviously both pictures cannot receive a prize; so the judges select one of the two. The print that is left is by no means rendered ineligible for future competitions. It may be entered again, and as often as its maker desires.

Photographic Work by Dr. Koike, A.R.P.S.

UNDER this title, the Art Institute of Seattle issued a list of pictures by Dr. Koike, A.R.P.S., which were displayed on the walls during December, 1929. A rather interesting feature was a list of the international salons in which Dr. Koike had prints accepted. Also, there was a list of camera clubs where his pictures were exhibited; and, finally, a list of photographic and other publications in which his pictures have been published. Truly, a remarkable record for this well-known Japanese pictorialist!

Clifton Adams—Photographs in Natural Color

OUR readers will recall the mention we made of Clifton Adams's visit to Wolfeboro and the very enjoyable time we had talking with him about his photographic travels in various parts of the world as a member of the *National Geographic Magazine* photographic staff. Since his visit to us he has given up globe-trotting and is now in Miami, Fla., specialising in photographs in natural color. His headquarters are with Richard B. Hoit, the well-known aërial photographer of Miami. Incidentally, Mr. Hoit is a New Hampshire man and his home is in North Conway, less than fifty miles from Wolfeboro. Mr. Hoit spends his summers in his New Hampshire home on the Saco River. Mr. Adams is specialising in the color-photography of large estates. However, he writes that there is color on all sides and already he has made many successful natural-color photographs in Miami and vicinity. His many published color pictures in the *National Geographic Magazine* prove beyond a doubt that he is an expert in his chosen field of photography. Those of our readers who are in Miami, or who expect to be there, should look up Mr. Adams and Mr. Hoit. We are sure that these gentlemen will welcome visitors from the North and do everything possible to make their visit to Miami a pleasant one.

Captain Lynd Cited for Gallantry in Action

ANNOUNCEMENT was recently made by the War Department of the award of a Citation for Gallantry in Action to Captain William E. Lynd, Air Corps, now on duty in the Inspection Division, Office of the Chief of the Air Corps. This citation reads as follows:

"CITATION FOR GALLANTRY-IN-ACTION SILVER STAR"

"WILLIAM E. LYND, Captain, Air Corps, then First Lieutenant, 135th Aëro Squadron, Air Service, American Expeditionary Forces. For gallantry in action over Essey, France, August 25, 1918. Lieutenant Lynd, with 2d Lieutenant Walker M. Jagoe, pilot, while on a mission to photograph the enemy-line from Montsec to Vieville-en-Haye, with two protection planes, was pursued by an enemy-formation of seven pursuit planes. One of the protection planes was seen to be in difficulty, the controls being damaged and the observer having been seriously wounded. Going to the assistance of this plane, Lieutenant Lynd and his pilot succeeded in driving off the enemy, although the injured plane crashed behind our lines. His mission not being completed, Lieutenant Lynd returned to the field, secured new photographic plates, and with one protection plane again endeavored to fulfill his mission. On arriving over the lines he was met by an enemy-patrol of five pursuit planes and driven back over the allied lines three times, when, not having sufficient gas to continue, he was forced to return. Securing another plane and pilot, Lieutenant Lynd endeavored the third time to complete this mission;

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but, after obtaining the necessary altitude, it was too late in the day to properly photograph the terrain."

[We publish this citation to remind our readers that photography in the World War had its heroes no less brave than other branches of our fighting forces. When one stops to realise how comparatively crude the aërial cameras of 1914–1918 were, as compared to modern equipment, there is all the more reason to admire the work done by photographic observers ashore, afloat, and in the air.—EDITOR.]

Harry Coutant

AMONG our photographers of an earlier day there are many who will regret to hear of the passing away of Harry Coutant on November 14 last, at St. John's Hospital, Brooklyn.

Always a master of technique, Mr. Coutant's services were much in demand among celebrated architects; but perhaps his marines and pictures of the old and colorful East Side Ghetto, made in his leisure hours, brought him the widest fame—for to Harry Coutant, photography was both an occupation and an avocation, and his pictures were in much demand and very frequently honored in the cities of both Europe and the Far East.

Mr. Coutant was the designer of one of the best viewing and retouching stands ever invented, and the two he gave to his favorite clubs are still in daily use by the members.

Mr. Coutant was a life member of the American Institute, and also for many years a member of the Camera Club of New York and the Department of Photography of the Brooklyn Institute of Arts and Sciences. In the latter he never relinquished his interests, as his many gifts of books and accessories will attest.

Mr. Coutant is survived by his widow, to whom we extend our most sincere sympathy.

The Photographic Society of Philadelphia

AT the annual meeting of the Photographic Society of Philadelphia, held December 9, 1929, the following officers were elected: President, W. Parrish Pearsall; vice-presidents, Robert A. Barrows and Lewis P. Tabor; treasurer, J. Jacob Baylson; secretary, E. A. McKinley. At the meeting, retiring President Allison gave a review of the work of the year and congratulated the officers and chairmen of the various committees on the results accomplished.

On December 19, a dinner was given at the Art Club in honor of Henry P. Baily. Mr. Baily has been a member nearly forty-five years and for four years acted as president. His term of office included the lean years of the World War, when many societies found it rough sledding. It was mainly through his efforts that the Society weathered this period and today is in a growing and prosperous condition. In recognition of his long and active membership, he was tendered the gold medal of the Society at the dinner.

Mr. Baily, in his reply of thanks, grew reminiscent and entertained the diners with recollections of the early days of the Society—which, by the way, is the oldest photographic society in the United States—and of former members who made their mark in the world of science and art, many of whom have since passed beyond. In his time, he has witnessed the transition of photography from the wet to the dry plate, and the replacing of the cumbersome box-camera with the reflex and motion-picture models.

Mr. Anthony W. Robinson, a life member, and possibly the oldest living member in length of membership, also spoke and told of the earlier homes of the Society. Situated on Walnut street in the seventies, across from Independence Square, a locality from which many Philadelphia "firsts" have sprung, the members had a room for meeting purposes only, as there were there no accommodations for photographic work. Over a period of several years, different homes were obtained, until a location on Arch Street, where a house was purchased, found the Society, so far as membership was concerned, at the high-water mark of its history. The growth of the pictorial photograph, and the difference of opinion engendered by it between the sharp and the diffused schools, caused dissension and finally a separation. It was not long after this period that the Arch Street house was abandoned and the present quarters on Sansom Street were occupied, where the Society now carries on its activities.

E. A. MCKINLEY, *Secretary.*

Big Plans for the P. A. of A. Prize Contest

FEBRUARY 20, 1930, will be the big day this year for members of the Photographers' Association of America. On that day 3,000,000 families will be given the first news of the Golden Anniversary $20,000 Prize Contest through advertising in the national magazines, and many more families will be informed through local newspaper advertising by photographers and the sending out of invitations for mothers and children to enter the contest.

Two famous authors, Mrs. Mary Roberts Rinehart and Miss Fannie Hurst, have agreed to serve as judges in the contest, along with Charles Aylett, president of the national association.

Their invitation to women and children to submit photographs so that a collection of pictures of lovely mothers and attractive children may be made up for exhibition-purposes, will carry great weight, will assure the confidence of the public in the contest and will greatly aid in making it a success.

Never before has the national association put so much effort into an undertaking as in this contest for the selecting of the loveliest mothers and the most attractive children in the United States and Canada.

The Salon Jury

(*Continued from page 100*)

The recent practice of selecting three jurors not residents of Pittsburgh is given little attention. One member says, "No objection to one Pittsburgh man provided he is not a member of your club." Another says, "This may have some value in avoiding criticism." But the consensus of opinion is that geography is of little consequence.

Opinion is sharply divided on the number of jurors. One member voices the opinion of the majority thus: "I am inclined to favor a small jury—three. The larger the jury the less discussion and the more work; and it is hard enough to find three competent judges, let alone five or seven. The large jury, of course, divides the responsibility into smaller portions, but I doubt if the results are any better. There is only the opportunity for more differences of opinion and the final result is little, if any, at variance with the selection of the smaller group, except that fewer prints are unanimously chosen."

The necessity of having men with a thorough knowledge of art on every jury is emphasised in nearly every reply; but our correspondents are equally emphatic

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that the artist must be in sympathy with, and understand the work that the pictorial photographer is trying to do. Our experience has taught that it is much easier to find photographers, both amateur and professional, who are accomplished painters, designers, or sculptors than it is to find painters with a sympathetic understanding of camera-work. One professional illustrator who has served many times on Pittsburgh juries combines a fine knowledge of the graphic arts with an understanding of photography to produce a critical judgment of pictures which is both fair and reliable. But alas, he, too, is an amateur photographer.

As an introduction to his comment, one member writes: "First of all, is the Salon held to bring together the best work of pictorial photographers and present it to the public; to show the best pictures possible to produce by photography? Or is it to develop new schools, stunt pictures, queer ideas, anything to be new and attract attention; and to please the camera workers themselves? If we are holding the Salon to bring together the best pictures made by photographic means and show them to the public, then I should suggest that we have at least one painter, sculptor, etcher, or anyone who has spent his life in the study of the fine arts. There should be one pictorial photographer, and the third man could be either an art-critic, an artist, or a photographer."

While agreeing thoroughly with this correspondent's idea, I believe that more consistent judgment will result from a jury of three, each of whom combines the qualities mentioned. Pittsburgh juries have usually been made up of photographers and have usually included two members who are also accomplished artists in other mediums. Possibly our acquaintance with the International Salon of Painting has made us a bit skeptical of the judgment, not to say sanity, of famous painters. Certainly the critics of that exhibition do not agree with the judges, and the public cannot agree with either judges or critics.

In support of the artists, one of our valued friends from abroad writes: "I know nothing of how pictures are selected for exhibitions, but I feel that they should be selected as pictures quite apart from their photographic medium and, therefore, I should have no photographers on a selecting committee composed instead of artists who would judge each print on its own merit and not select one or more from each contributor's collection."

About five years ago we instituted the practice of shuffling the prints and bringing them before the jury one at a time without showing the maker's name. This scheme has been the subject of much violent criticism and much ardent praise. It is not supported by a majority of the replies to this questionnaire; but those voting against it do not bring forward reasons for their vote as do those voting in its favor. One writer comments: "The ideal way of presenting prints would be shuffled and matted so that signatures and salon labels could not be inspected. A juror, no matter how impartial he tries to be, cannot but be influenced by the knowledge of the maker of the print and its salon acceptances." And another: "I think your recent plan of shuffling prints a distinct improvement upon former plans." And another: "It should be an exhibition of pictures, not of men and countries." To us who have seen several juries work with the shuffled prints and have watched our own prints come up and pass into the rejected pile, or perhaps receive the coveted mark of approval, the scheme seems "sporting" and fair. A contributor with four good pictures has a chance to hang them all. And, if only one is hung, he knows that it passed because the jury thought it a picture. There is no thought here of encouraging the beginner or having representatives from many countries. Nor is the number accepted trimmed to fit the gallery walls. I have never yet known a Pittsburgh jury to accept more pictures than could be hung.

Open discussion is favored by most members. One of our former jurors writes: "I am for the open jury to the last ditch. A man working in secret makes many errors he avoids when he gives his opinion in front of the other judges. Also, he can be sized up better for his ability, favoritism, etc." Another man writes: "I believe it best for the jury after a frank discussion to decide as a unit on the print and that one juror is entitled to an expression of opinion from the others."

When a large jury is working, individual voting without discussion becomes necessary, if everyone's opinion is to have equal weight and the work is to be completed in a reasonable time. With three or even five members, we believe that open discussion and lots of it will produce a better show than secret ballot. Majority vote to decide after free discussion among the jurors, and no comments from the side lines, has been the rule at Pittsburgh for several years.

Grading by an arbitrary scale, as was done at New York, or voting by written ballot, as was done at Portland, does not fit with the small jury and open discussion. Our vote shows a decided "no".

After all, pictorial photography is a hobby, an amateur sport where the player's amateur standing is determined by his spirit rather than by his vocation. The salons were founded by amateurs and are being carried on without hope of any gain other than recreation and good fellowship. Let's play the game for the fun there is in it. Let's not get insulted or quit the game when our pet print is rejected; let's send it to another show, and then another. When I have a print rejected by three juries in succession, I always suspect that it is not quite good enough; but when it has one reject to three accepts, I think that somebody made a mistake. There are professional photographers who will not compete at their convention exhibits for fear that failure to win the grand prize may injure their prestige and their business. We amateurs have nothing to be hurt but our pride, so let's play the game for its own sake. If it's fun to razz the umpire, by all means razz, but please do not throw pop bottles.

B. H. Chatto,
Secretary of the Pittsburgh Salon.

[We thank Mr. Chatto for this helpful article, which we planned to feature in the front pages of this issue. However, it arrived just too late; and rather than hold it over for another month we decided to print it, even though not in the featured position which it merited.
Editor.]

Very black, very small, and much impressed with the importance of her mission, she stood before the kindly lady of the house.

"Well, Ophelia?"

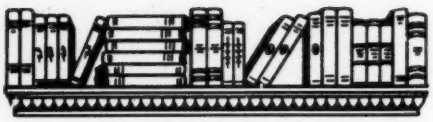
"I'se de washerwoman's little girl, and Mommer she say please to len' her a dime. She got to pay some bills." *Contact.*

Jones (facetiously): "That is the portrait of my wife's first husband."

Smith: "Good heavens! What a brainless-looking ass! But I didn't know your wife was married before she met you?"

Jones: "She wasn't. That is the picture of myself at the age of twenty." *Thru the Darkroom Door.*

XUM



BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.

DAS DEUTSCHE LICHTBILD, Volume III. Published by Robert and Bruno Schultz. 52 pages of text and 112 illustrations. Price, cloth, $3.75. Boston: American Photographic Publishing Company.

With all due respect to the many excellent photographic annuals now published in the world, we believe that there is not one which is superior to Volume III of "Das Deutsche Lichtbild". We doubt that there are any finer reproductions to be found anywhere. We cannot refrain from lavish praise of this remarkable German photographic annual. It is evident that no expense has been spared in the typographical production of the book. As for the illustrations themselves, we do not believe that a finer or more representative collection exists in any other annual. Virtually every branch of photography is shown at its best. The entire volume is a splendid example of German thoroughness and technical skill. No matter what type of picture appeals to the purchaser, he will find several which are of especial value to him as striking examples of the best in his particular field. Even the general reader cannot help being tremendously impressed with the sheer beauty and appeal of the reproductions.

The text-matter, for which an English translation is supplied for those who request it, is of exceptional character and value to thoughtful readers. There is a freshness of viewpoint and analytical keenness which cannot fail to hold the attention. Altogether, in our opinion, this Volume III is a true photographic annual and carries out our idea of what such a publication should be. It is a credit to Germany and to all who had a part in its preparation. We believe that a statement of the aims of this splendid volume will give several reasons for its remarkable success. We quote from the published statement which appears in every copy:

"It aims at publishing the most perfect reproductions of the best German photographs year by year. It was received enthusiastically both at home and abroad as the standard work of German photography.

"Its aim is not to be a special work for photographers only, but it endeavors to be an inexhaustible source of new forms and pleasure for all observers and students of photography.

"It neither aims at presenting photography as a mechanical process of reproduction nor as a drawing-room art, but endeavors to show that a simple means of expression has developed into a manifold means of expression when handled by an expert.

"It aims at presenting a view of the independent art of photography by exhibiting all branches of this art and showing by examples its various possibilities.

"It aims neither at serving any special school or group or fashion and thus also presents the works of individualists, both unknown and unappreciated, together with the works of recognized masters.

"It aims at establishing German photography abroad in that position it merits."

PICTORIAL PHOTOGRAPHY IN AMERICA, Volume V. 112 pages of text and 58 illustrations. Price, boards, $3.00. New York: The Pictorial Photographers of America.

There is every reason to welcome Volume V of "Pictorial Photography in America". The reproductions in collotype by the Meriden Gravure Company, the letterpress by The Cumberland Press, and the binding by the J. F. Tapley Company deserve unqualified praise. However, we feel especially indebted to those pictorialists in America who really made the volume what it is pictorially by their splendid work. Then, too, there is much of value in the text-matter which is contributed by Frank Crowninshield, Ira W. Martin, Guy Gaylor Clark, and M. F. Agha. We believe that this volume gets very close to the true status of pictorial photography in America today. The thorough student of pictorial photography cannot afford to be without this excellent volume, which merits a cordial reception on the part of all those who wish to encourage the growth and success of pictorial photography in America, now and in the future.

FIGURES, FACES, AND FOLDS. A Practical Reference Book on Woman's Form and Dress, and its Application in Past and Present Art. By Adolphe Armand Braun, with sections on Drapery and Anatomy by D. Hartley. 152 pages and many illustrations. Price, cloth, $7.50. Boston: American Photographic Publishing Company.

Those of our readers who are designers, artists, and art-students will find this book of much practical value in their work. It is a thorough and constructive study of the subject, with especial attention paid to the demands of today. We believe that the photographer who is interested in figure-studies will find many excellent suggestions in this volume. Many examples of the masterpieces of art are reproduced for study and comparison. There are a large number of poses from living models which are used to help the reader in the designing of his pictures. The text-matter is interesting and well written, with a view to holding the attention and imparting information. Those who are even moderately interested in matters of art, and their relation to photography, will find "Figures, Faces, and Folds" well worth the investment.

FILM YEAR BOOK—1929. Edited by Maurice D. Kann. 1056 pages and many photographic illustrations. Price, cloth, $5.00. Los Angeles: John W. Alicote.

Amateur and professional kinematographers are always interested in the doings of the leading players, and this annual not only records the names and work of the leading players, directors, scenario-writers, and others, but also supplies much interesting data with regard to motion-pictures in general and the plays which have appeared during the year. Also there is considerable data about theaters and related subjects. Then, too, we find an interesting survey by countries of the situation in the motion-picture industry at home and abroad. Also, helpful chapters on technical progress, motion-picture books, buying guide, public likes and dislikes, music publishers, financial statement, and other interesting and practical data. We believe that those who are directly and indirectly interested in the entire subject of motion-pictures will be well repaid by the careful study of this interesting annual.

The personalities of the players on the screen and the producers behind the scenes are well worth knowing about. It helps our appreciation of their work.

THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY, F.R.P.S.

The Magic Fluid

THE human mind is prone to ignore those factors of life which are of supreme importance, so it is probably not at all remarkable that in motion-picture photography we take light for granted; yet, without this truly magic fluid, the most fascinating hobby of modern life would be impossible.

It is true that we know the impossibility of photographic processes without the action of light, and it is also true that many of us are familiar with a set formula of lighting which is supposedly necessary for the best results in photography. In spite of this, how many of us are truly familiar with the real function of light in vision and consequently in all graphic representation?

There has been much discussion of the position of the motion-picture in the world of art. This discussion has, naturally, been along the lines of pure æsthetics. Opinion is divided in respect to the æsthetic position of the motion-picture; but there can be no question whatever that so far as graphic representation is concerned, the rules which make a drawing lifelike will also aid the realism of the motion-picture.

The question of realism is one which deserves a great deal of thought. Do not mistake realistic representation for realism. It is possible to make a technically excellent film which utterly lacks realism, and on the contrary a truly realistic film need not be necessarily of great technical excellence. As we are not concerned with draughtsmanship in photography, the one factor which will do the most to add artistic realism to our fims is that of lighting.

For the sake of simplification, we often recommend the "three-quarter" or "plain" lighting, in which the light falls upon the subject from behind the camera, at one side, and somewhat above. This is an empirical formula, often good and often very, very bad! The actual lighting to be selected for any subject is wholly determined by the subject and the impression we wish to convey. To try to formulate all possible combinations would be a formidable task, and a thankless one; for the resulting tabulation would be so unwieldy and complicated that no one would attempt to make use of it, nor could one succeed in such a trial.

Scientific analyses of lighting have been attempted. Indeed, the writer at one time formulated lighting and reduced it to a system of numerical factors; but even this was too complex. What, then, can be done to make the art of science available to the serious amateur who has neither time nor inclination for a full course of training in art-technique?

The mathematical approach is unsuccessful; but there is an inductive approach which may be more successful.

Primitive ages, even before the dawn of the historical era, knew attempts at graphic representation, many of them beautiful, many of them conventionalised to a degree which hints at an astoundingly long period of development, but all of them marked with the outstanding characteristic of barbarian art—the grotesque.

Following the truly barbarian period, we have that of the primitive, a period which lies within the borders of history, yet which historically antedates the art of Greece. This period is marked by drawings in which the outline has been developed to a remarkable degree of perfection, but in which relief has been grossly slighted.

Finally, we have the last period, which is characteristic of the art of Greece and later of the Renaissance, in which we have the full development of relief.

An incident in the early life of Rodin may aid in making plain the great difference between graphic art in the flat and that in relief. Rodin was carving a capital for a column. The master, Constant, approaching, told Rodin that his work was too flat, that he should extend his leaves so that the spectator would obtain the sensation of extension toward himself. This later characterised the work of Rodin. As he, himself, expressed it: "All form is the result of inward force. The human body is pressed outward by the enclosed organs." There is a solidity in the body and this must be expressed as extension toward the spectator! This is as true, or even more true in drawing, painting—and photography, than in sculpture.

In photography we want to express above all else the extension of the subject toward the spectator. In other words, we want to obtain a simulation of the depth which is really non-existent! True, this is a well-known fact to photographers; yet, if photographers know how to obtain this effect, they certainly fail sadly in putting their knowledge into practical use!

Instead of trying to seek the infinite nuances of gradation, which we know the photographic process can reproduce, let us try to simplify! The softness of effect due to this infinite gradation is one of the things which robs photography of the vitality so necessary in any true work of art!

Lighting may safely be regarded as a type of illumination which will give us three degrees of gradation—shadow, highlight, and a halftone. Add two degrees, making shadow, dark halftone, medium halftone, and light halftone with highlight, and you have the maximum gradation with which you can safely work!

Learn to use but one light for the lighting-effect. Let the transition from shadow to highlight be bold, even rugged! Make use of spot and line lights to provide a distinct edge against a background! Use supplementary lights to build up the luminosity of cast shadow to compensate the lack of sensitivity of the sensitive film. For the illumination use only one source of light, preferably a single filament, but employ at least a single bank of lights. Do not be afraid of deep shadow; do not even fear a transient loss of features in black shade. Let the light, by its unhesitant gradation from black to white, in bold steps not only suggest but insistently declare the rotundity of the subject being photographed!

Used as we are to an abundance of diffused light, provided to insure against the loss of the tiniest detail in our films, we instinctively fear the harsh lighting suggested; yet let us remember at all times that art is a matter of simplification, while detail leads to a hete ogeny which approaches the chaotic! There is no means by which we can simplify in photographic technique as readily as we can by means of light-manipulation.

XUM

The position of the light? Who can tell? Pose your subject in a typical position. Then move the light about until you find that position which makes the solidity, the rotundity of the figure almost painfully obvious.

In photographic procedure, we are constantly faced with a degradation of contrast which means a degradation of brilliance. The natural correction is to overemphasise, to exaggerate in the original, thus securing, indirectly, the scale we desire in the finished product.

A composition which is flat, or one in which the heavy shadow sinks into the background without demarcation, can often be remedied, even made into a masterful composition, by the addition of a distinct edge. As we cannot add the edge by means of pencil or brush, we must do it solely by light. But remember that this is an accessory light and is to be used for edging alone and not for illumination. This is best accomplished by a light-source falling upon the back and side of the subject, but carefully shielded from the lens. Here we have the genesis of the familiar "backlight", also the reason why the backlight, often so beautiful, is far more often banal. The backlight is really an edge light and certainly is inexcusable when the necessity for the edge is lacking.

A distinct edge tends to strengthen the quality of the tones lying adjacent. It also lends strength and adds convincing realism to the subject. Let the shadow side be dark, let the background be black. Separate the two by a narrow edge of light, subdued or brilliant, and your photograph will have that elusive quality known as "richness".

Learn to use lighting, not according to rule, but according to the result achieved. You cannot achieve masterpieces in lighting until you learn to see the scene as it will be photographed, before a single exposure is made.

Light is your palette, your brush, and your pigment. Learn to know it before you attempt to use it. Then use it intelligently in such a manner as to make the subject stand out ruggedly in three dimensions. Keep constantly within the bounds of a simple scale of gradation. Use the edge for a purpose, not erratically, and you will produce films which may not satisfy the camera-salesman critic, but which will earn, probably, favorable comment from those who truly know and appreciate works of art!

Another Dream Come True

It may be remembered that in this department we have often advocated a compact sixteen-millimeter camera using considerably less than one hundred feet of film. It has always seemed to us that in the hands of the average user the one-hundred-foot film roll occasioned a considerable loss of film. We often find, as soon as we have learned to use the camera efficiently, that from thirty to forty feet of film is used in making the shots we really desire and that, thereafter, we either deliberately lose the remainder or use it up shooting inconsequential objects in which we have only a very transient interest, if any at all.

What could be more obvious than a camera of less capacity, one which would be in consequence lighter and more compact? We have often contended that a small camera, of fixed focus, light in weight and of less film-capacity, would be the ideal instrument for general motion-picture photography. Of course, it is not suggested that such a camera would be suitable for serious production of multi-reel photodramas; but for home-shooting, for the family film-album, for vacation-films, for travel, for school-records—in short, for almost every conceivable form of film-record, such a camera would be perfect.

Just such a camera has made its appearance upon the market, sponsored by a name which has for years stood for the highest possible quality in photographic equipment, Carl Zeiss. The new camera, a miniature edition of the very favorably known Kinamo, is characterised by the same exquisite workmanship common to all Zeiss products, fitted with an F/2.7 Tessar, and made to produce films of the highest quality.

The camera itself is slightly smaller than the Pathex camera, with which most of us are familiar. Roughly, it will measure about 2½ x 3 x 4 inches. It is equipped with a direct-vision finder and film-meter, and has a dial showing the amount of film which will be exposed before the motor is run down. The film is packed in metal magazines, so that loading is merely a matter of opening the camera, placing the magazine in position and closing the camera. Utter simplicity has been achieved without the slightest loss of efficiency.

The smart appearance of this tiny instrument, its evident quality, and the work it produces will combine to recommend it to thousands of users who have been seeking a really efficient small motion-picture camera.

Surgical Films in Color

The debate of thirty-five-millimeter *versus* sixteen-millimeter continues. More and more, amateur and professional alike turn to the idea of using a thirty-five-millimeter camera and having reduction prints made for home-projection. The advocates of sixteen-millimeter cameras will rejoice to learn that recently one of the most difficult problems in motion-picture photography has been solved in a thoroughly satisfactory manner, using a sixteen-millimeter camera. The problem involved is that of making motion-pictures of surgical operations in true natural color!

It is well known that color in surgery is not a matter of æsthetics, but one of diagnosis! The color must not be harmonious, it must not please the eye; but it must be scientifically accurate in order that the significance of the color may be called to the attention of those viewing the film!

Naturally, such work is done under artificial light; and, due to the nature of the subject, this light must be that most satisfactory for the surgeon, while the cameraman does the best he can. Such lighting is naturally flat in character and is obtained from an incandescent filament source.

With the yellow color of the incandescent, it is evident that our color-balance will be distorted, and with usual methods we should have a color-scale entirely out of relation to that of the original.

The Vitacolor Corporation produced a taking-filter so accurately balanced between the yellow of the incandescent illumination and the yellow of the projection-light that the screen-effect is a true color-record of the original. This so-called "medical filter" is finding great favor in the hands of amateurs throughout the country, who find it ideal for all interior work where the illumination is provided by incandescent lights.

The writer used one of these filters to make sixteen-millimeter films in natural color synchronised with sound. The result was a talking film in natural color, the effect of which was so realistic that it was almost uncanny. This filter is one which all owners of Vitacolor equipment should own, and those who do not own such equipment should at once arrange to become acquainted with the great pleasure of making motion-pictures in natural color.

LAKE HATH CHARMS

H. P. HERRON